

EN

EN

Error! Unknown document property name.

EN



COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 20.2.2009
SEC(2009) 177

COMMISSION STAFF WORKING DOCUMENT

Accompanying document to the

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE, THE COMMITTEE OF THE REGIONS AND THE EUROPEAN
CENTRAL BANK**

**Five years of an enlarged EU
– Economic achievements and challenges –**

{COM(2009) 79 final}

COMMISSION STAFF WORKING DOCUMENT

Accompanying document to the

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE, THE COMMITTEE OF THE REGIONS AND THE EUROPEAN
CENTRAL BANK**

**Five years of an enlarged EU
– Economic achievements and challenges –**

{COM(2009) 79 final}

European Commission

Directorate-General for Economic and Financial Affairs

Five years of an enlarged EU

Economic achievements and challenges

ABBREVIATIONS AND SYMBOLS USED

Member States

BE	Belgium
BG	Bulgaria
CZ	Czech Republic
DK	Denmark
DE	Germany
EE	Estonia
EL	Greece
ES	Spain
FR	France
IE	Ireland
IT	Italy
CY	Cyprus
LV	Latvia
LT	Lithuania
LU	Luxembourg
HU	Hungary
MT	Malta
NL	The Netherlands
AT	Austria
PL	Poland
PT	Portugal
RO	Romania
SI	Slovenia
SK	Slovakia
FI	Finland
SE	Sweden
UK	United Kingdom

Other countries

BR	Brunei
HK	Hong-Kong
ID	Indonesia
KR	South Korea
MY	Malaysia
PH	The Philippines
SG	Singapore
TH	Thailand
TW	Taiwan

EA	Euro area
EA-15	European Union, Member States having adopted the single currency (BE, DE, EL, ES, FR, IE, IT, CY, LU, MT, NL, AT, PT, SI and FI)
EU-10	European Union, Member States that joined the EU on 1 May 2004 (CZ, EE, CY, LT, LV, HU, MT, PL, SI and SK)
EU-12	EU-10 plus Member States that joined the EU on 1 January 2007 (BG, RO)
EU-15	European Union, 15 Member States before 1 May 2004 (BE, DK, DE, EL, ES, FR, IE, IT, LU, NL, AT, PT, FI, SE and UK)
EU-25	European Union, 25 Member States before 1 January 2007
EU-27	European Union, 27 Member States

Currencies

EUR	euro
BGN	New Bulgarian lev
CZK	Czech koruna
DKK	Danish krone
EEK	Estonian kroon
GBP	Pound sterling
HUF	Hungarian forint
JPY	Japanese yen
LTL	Lithuanian litas
LVL	Latvian lats
PLN	New Polish zloty
RON	New Romanian leu
SEK	Swedish krona
SKK	Slovak koruna
USD	US dollar

Other abbreviations

ALMPs	Active Labour Market Policies
ASEAN	Association of Southeast Asian Nations
BEPG	Broad Economic Policy Guidelines
BIS	Bank for International Settlements
Bn.	Billion
CAP	Common Agricultural Policy
CESR	Committee of European Securities Regulators
CF	Cohesion Fund
CIS	Commonwealth of Independent States
EAFRD	European Agricultural Fund for Rural Development
EAGF	European Agricultural Guarantee Fund
EBRD	European Bank for Reconstruction and Development
ECB	European Central Bank
ECOFIN	European Council of Economics and Finance Ministers
EDP	Excessive deficit procedure
EFF	European Fisheries Fund
EMU	Economic and monetary union
ERDF	European Regional Development Fund
ERM II	Exchange Rate Mechanism, mark II
ESCB	European System of Central Banks
ESF	European Social Fund
EU	European Union
Eurostat	Statistical Office of the European Communities
FDI	Foreign direct investment
FSAP	Financial Services Action Plan
GDP	Gross domestic product
GNI	Gross National Income
HICP	Harmonised index of consumer prices
ICT	Information and communications technology
IMF	International Monetary Fund
IP	Industrial Production
ISPA	Instrument for Structural Policies for Pre-Accession
lhs	Left hand side
M&A	Mergers and Acquisitions

Mio.	Million
MENA	Middle East and Northern Africa
MTO	Medium-term budgetary objective
NAWRU	Non accelerating wage inflation rate of unemployment
NEER	Nominal effective exchange rate
NMS	New Member States
NUTS	Nomenclature of Territorial Units for Statistics
OCA	Optimum currency area
OMS	Old Member States
PHARE	Poland and Hungary: Assistance for Restructuring their Economies
PPS	Purchasing Power Standard
R&D	Research and development
REER	Real effective exchange rate
rhs	Right hand side
RoW	Rest of the World
SAPARD	Special Accession Programme for Agriculture and Rural Development
SE Asia	Southeast Asia
SGP	Stability and Growth Pact
SITC	Standard International Trade Classification
TFP	Total factor productivity
UN	United Nations
ULC	Unit labour costs
USSR	Union of Soviet Socialist Republics
VA	Value added
VAT	Value added tax
WTO	World Trade Organisation

Legend to tables

:	Figures are negligible
(figure)	Figure of limited reliability
na	Not available

ACKNOWLEDGEMENTS

This report resulted from the collaboration of several Commission services. It was prepared under the responsibility of a Steering Board consisting of Marco Buti (Director General of the Directorate-General of Economic and Financial Affairs), Michael Leigh (Director General Enlargement) and Vitor Gaspar (acting Director General Bureau of European Policy Advisers).

A Coordination Committee assisted in the steering of the project with the following members: Jost Angerer (Directorate-General Enterprise and Industry), Tom Diderich (Directorate-General Internal Market and Services), Filip Keereman (Directorate-General Economic and Financial Affairs), Radek Malý (Directorate-General Employment, Social Affairs and Equal Opportunities), Lars Nilsson (Directorate-General Trade), István Pal Székely (Directorate-General Economic and Financial Affairs), Axel Wallden (Directorate-General Enlargement).

Filip Keereman and István Pal Székely, both of the Directorate-General Economic and Financial Affairs, did the overall management of the project.

The main contributors to the report were Siegfried Steinlein (ECFIN), Mihai-Gheorghe Macovei (ECFIN), Anton Jevčák (ECFIN), Balázs Párkányi (ECFIN), Corina Weidinger Sosdean (ECFIN), Christian Just (ECFIN), Guy Lejeune (ECFIN), Malgorzata Galar (ECFIN), Jost Angerer (ENTR), Aleksander Rutkowski (ECFIN), Nikolay Gertchev (ECFIN), Alfonso Arpaia (ECFIN), Christoph Maier (EMPL), Christian Gayer (ECFIN), Dominique Simonis (ECFIN), Alexandr Hobza (ECFIN), Lorena Ionita (ECFIN), Roland Eisenberg (ECFIN), Zdeněk Čech (ECFIN), Paul Kutos (ECFIN), Stefaan Pauwels (ECFIN) and Rafal Raciborski (ECFIN).

Specific contributions were provided by Rainer Wichern (ECFIN), Manuel Palazuelos Martinez (ECFIN), Anna Melich (BEPA), Lars Nilsson (TRADE), Norbert Sagstetter (SG), Uwe Böwer (ECFIN), Alessandro Turrini (ECFIN), Julia Lendvai (ECFIN), Constantin Tudor (ENTR), Heinz Jansen (ECFIN), Katarzyna Wilk (BEPA), Jakub Wtorek (EMPL), Michael Grams (ECFIN), Jan in't Veld (ECFIN), Janos Varga (ECFIN), Christian Buelens (ECFIN), Olivia Galgau (ECFIN), Barbara Moench (ECFIN).

Particular chapters or sections in the report received guidance from Jan Truszczyński (ELARG), Maurice Guyader (ELARG), Tassos Belessiotis (BEPA), Heliodoro Temprano Arroyo (ECFIN), Siegfried Steinlein (ECFIN), Karl Pichelmann (ECFIN), Radek Malý, (EMPL), Peter Weiss (ECFIN), Fabienne Ilzkovitz (ECFIN), Declan Costello (ECFIN), Lucio Pench (ECFIN), Massimo Suardi (ECFIN), Mark Hayden (ECFIN).

The report benefited from an extensive review by Oliver Dieckmann (ECFIN). A language check was provided by David Crowther and colleagues (DGT), as well as by Sophie Bland (ECFIN).

The lay-out of the report was in the capable hands of Rajko Vodovnik, Mariola Przygoda and Martine Maebe.

Comments on the report would be gratefully received and should be sent by mail or e-mail to:

Filip Keereman

István Pal Székely

European Commission

Directorate-General of Economic and Financial Affairs

Office BU5 2-166

B-1049 Brussels

e-mail: filip.keereman@ec.europa.eu; istvan-pal.szekely@ec.europa.eu

CONTENTS

Communication from the Commission	1
Chapter I: Introduction	5
Chapter II: Five years in the EU: achievements and experiences	9
Summary of main findings	11
1. Enlargement and the EU in the world	13
1.1. Milestones of the fifth Enlargement	13
1.2. Expectations regarding the fifth enlargement	15
1.3. EU economic governance	16
1.4. Challenges and opportunities for the new and old Member States and the EU as a whole	17
1.5. The enlarged EU in the global economy	19
1.6. An enhanced international role	21
2. Economic performance in an enlarged EU	24
2.1. Ex-ante estimates of the economic impact of enlargement	24
2.2. Closing the income gap	26
2.3. The quality of the catching-up	28
2.4. Economic Integration and macroeconomic stability: the underlying conditions for growth	31
3. Does the EU make a difference?	38
3.1. Economic integration in Asia	38
3.2. Catching-up in the new Member states and Asia	40
3.3. Similarities and differences in the growth model	42
3.4. Conclusion	47
Chapter III: Goods and services in an enlarged EU	49
Summary of main findings	51
1. Trade and catching-up	53
1.1. Trade and growth	53
1.2. Competitiveness	55
1.3. Geographical composition	56
1.4. Product composition	60
2. The functioning of the product markets in the recently acceded Member States	66
2.1. Shift towards a knowledge society	66
2.2. Overall evolution of competition	68
2.3. General governance of competition and regulatory policies	70
2.4. State aid	71
2.5. Competition in specific sectors	72
Chapter IV: Capital markets in an enlarged EU	79
Summary of main findings	81
1. Foreign direct investment and catching-up	83

1.1.	The role of FDI in enhancing the growth potential of the host economies	83
1.2.	Factors which drive FDI in the EU	87
1.3.	Possible relocation of production capacity and jobs	89
1.4.	The sectoral and regional dimensions	94
2.	Financial integration and financial sector development	98
2.1.	Financial sector development and integration	98
2.2.	Challenges of financial integration and development	104

Chapter V: The free movement of labour in an enlarged EU 111

	Summary of main findings	113
1.	Changing labour market patterns in the enlarged European Union	114
1.1.	Better labour market performance in the old Member States	114
1.2.	Labour markets in the new Member States	115
2.	The opening of the borders and mobility	122
2.1.	Transitional arrangements for the free movement of workers	122
2.2.	Extent of intra-EU mobility after enlargement	122
2.3.	Main characteristics of intra-EU movers	127
2.4.	The impact of recent intra-EU migration	129
2.5.	Summary and conclusions	132

Chapter VI: Integrating in the EU or in the world? 135

	Summary of main findings	137
1.	Economic integration, structural similarity and specialisation	138
2.	Business cycle synchronisation between new and old Member States: the empirical picture	141
3.	Estimating the relationship between synchronisation and economic integration	147
4.	Summary and conclusions	148

Chapter VII: Enlargement and the EU policy framework 151

	Summary of main findings	153
1.	The Single Market	156
1.1.	Main lessons from the Single Market Review	156
1.2.	Degree of implementation of the Single Market in the new Member States	158
1.3.	Impact of enlargement on the Single Market	160
2.	The Lisbon strategy for growth and jobs	165
2.1.	New Member states and structural reform	165
2.2.	Lisbon strategy and new Member states	169
2.3.	The reform priorities in the new and old Member states	171
2.4.	Progress since the relaunch of the strategy	175
2.5.	Conclusions	175
3.	Fiscal surveillance	177
3.1.	Recent fiscal performance	177
3.2.	Safeguarding macro-financial stability	179
3.3.	Public investment and the quality of public finances	181
4.	Economic and Monetary Union	186

4.1.	Monetary and exchange rate arrangements in the "pre-ins"	186
4.2.	Progress in nominal convergence: 5 years on	187
4.3.	Challenges of the euro convergence process	191
4.4.	Conclusions	195
5.	The role of EU transfers	196
5.1.	Types and volumes of EU transfers	196
5.2.	Regional and cohesion policy	199
5.3.	Common Agricultural Policy	204

References

207

LIST OF TABLES

II.1.1.	The enlarged EU in the global economy, 2007	21
II.2.1.	Estimation results for beta-convergence in EU-27	27
II.2.2.	GDP growth and its main components	29
II.2.3.	Sectoral contributions to growth	29
II.2.4.	Sectoral contribution to growth in selected regions	30
II.2.5.	Production factors' contribution to growth	30
II.2.6.	Investment by asset type	31
II.2.7.	Trade patterns in the enlarged EU	32
III.1.1.	Average growth rates of trade volumes per region	53
III.1.2.	Export market shares of new and old Member States	57
III.1.3.	Geographical destination of exports of new Member States	58
III.1.4.	Geographical destination of exports of old Member States	59
III.1.5.	Breakdown of total exports by factor intensity	61
III.1.6.	Breakdown of manufacturing exports by technology intensity	62
III.1.7.	Export quality as measured by unit value ratios	65
III.2.1.	Total state aid	71
III.2.2.	State aid: sectoral and horizontal objectives	72
IV.1.1.	Correlation of average employment in manufacturing enterprises in the old and the new Member States, 1998-2007	93
IV.2.1.	Quality of institutions in the new Member States and in other developing countries, 1999-2008	104
IV.2.2.	Financial soundness indicators for the new Member States in 2004 and 2007	107
IV.2.3.	Fitch approach on banking system soundness for the new Member States in 2005 and 2008	108
V.2.1.	Member States' policies towards workers from the new Member States	123
V.2.2.	Main EU destination countries of recent intra-EU movers, 2007	125
V.2.3.	Employment by economic activity of recent movers from new to old Member States, 2007	129
V.2.4.	Employment by skills of recent movers from new to old Member States, 2007	129
V.2.5.	Medium-term economic effects of recent intra-EU mobility flows on receiving and sending Member States	131
VI.1.	Output composition in nominal terms	139
VI.2.	Output composition in real terms	140
VI.3.	Business cycle correlation: new Member States with old Member States aggregate	142

VI.4.	Business cycle correlation: new Member States with the US	143
VI.5.	Leads and lags of new Member States' business cycles versus old Member States and the US	144
VI.6.	Volatility of new Member States' cycles	144
VI.7.	Persistence of cycles in the new Member States	145
VI.8.	Correlation of expenditure components in new Member States with old Member states	146
VI.9.	Correlation of sectoral output cycles in new Member States with old Member states	147
VI.10.	Determinants of synchronisation: model results	148
VII.1.1.	Mergers and acquisitions in the new and old Member States classified by region of bidding firm, 2000-2007	161
VII.1.2.	Sectoral classification of mergers and acquisitions in old and new Member States, 1998-2007	162
VII.2.1.	Evidence on post-enlargement reform fatigue from different reform indicators	167
VII.3.1.	Budget balances in the new Member States	178
VII.3.2.	Volatility in fiscal variables, 2004-2008	180
VII.3.3.	Growth and the quality of public finances: selected indicators for the EU Member States, 2004-08	182
VII.4.1.	Monetary policy regimes in the new Member States	187
VII.5.1.	Absorption rates in programming period 2000-2006	201

LIST OF GRAPHS

II.1.1.	Support for enlargement, Autumn 2002	15
II.1.2.	Opinions on enlargement	16
II.1.3.	The EU after enlargement in perspective	20
II.2.1.	Per capita GDP in the EU	26
II.2.2.	Sigma-convergence in the EU	27
II.2.3.	Regional disparities and per capita GDP in 1995-2005	28
II.2.4.	Inward FDI in the new and old Member States	32
II.2.5.	Output gaps in the enlarged EU	32
II.2.6.	FDI stocks in the new Member States and economic growth of selected old Member States	33
II.2.7.	Trade with the new Member States and economic growth of the old Member States	33
II.2.8.	Nominal convergence in the enlarged EU	36
II.2.9.	Sacrifice ratios in the old and new Member States	36
II.3.1.	Real GDP growth in selected Asian countries during and after the 1997 Asian crisis	42
II.3.2.	Real GDP growth in the new Member States, 2007-2009	42
II.3.3.	Catching-up in the new Member States and Southeast Asia, 1999-2008	42
II.3.4.	Real GDP growth and its composition in the new Member States and Southeast Asia, 2003-2007	43
II.3.5.	Savings and investment in the new Member States and Southeast Asia	44
II.3.6.	Intra-regional trade in the new Member States and Southeast Asia	44
II.3.7.	Bertelsmann Transformation Index for the new Member States and Southeast Asia	46
III.1.1.	The importance of intra and extra-EU trade in goods for new and old Member States	54

III.1.2.	Member States' openness ratios and real GDP growth, 1996-2007	55
III.1.3.	Real effective exchange rates and their components	56
III.1.4.	Export market share after EU accession (extra-EU)	57
III.1.5.	Shifts of export destinations from a single old Member State, 1999-2007	58
III.1.6.	Shifts of export destinations from a single new Member State, 1999-2007	59
III.1.7.	Trade balance of old Member States in 1999-2007	60
III.1.8.	Trade balance of new Member States in 1999-2007	60
III.1.9.	New Member States: export market share by factor intensity	63
III.1.10.	Old Member States: export market share by factor intensity	63
III.1.11.	New Member States: export market share by technology intensity	63
III.1.12.	Old Member States: export market share by technology intensity	64
III.2.1.	Employment in high-tech manufacturing and knowledge-intensive high- technology services	66
III.2.2.	Exports of high technology products	66
III.2.3.	The European Innovation Scoreboard	67
III.2.4.	European Patent Office applications	67
III.2.5.	Tertiary graduates in science and technology	68
III.2.6.	Perceived development of competition	69
III.2.7.	Incidence and change of business constraints	69
IV.1.1.	Importance of inward FDI in host economy investment	84
IV.1.2.	The role of services in foreign direct investment in the EU	86
IV.1.3.	Inward FDI in the new Member States according to its origin	87
IV.1.4.	Inward FDI in the new Member States and possible macroeconomic factors of relocation	88
IV.1.5.	The ease of doing business and FDI in the EU Member States	89
IV.1.6.	Intermediate imports by old Member States from selected country groups	93
IV.1.7.	Domestic demand in the old Member States and income from FDI in the new Member States	94
IV.1.8.	The sectoral concentration of inward FDI	95
IV.1.9.	The FDI stock and regional GDP dispersion in the EU	96
IV.2.1.	Structure of financial markets in the Member States, 2008	98
IV.2.2.	Total bank credit to the non-financial private sector	100
IV.2.3.	Concentration of the banking sector in the new Member States, 2001- 2007	100
IV.2.4.	Foreign ownership in the banking sector in the new Member States	100
IV.2.5.	Stock market liquidity, 2000-2007	101
IV.2.6.	Structure of the debt securities markets, 2006	101
IV.2.7.	Distribution of total financial assets, 2007	101
IV.2.8.	Lending and deposit rate spreads, 1998-2008	102
IV.2.9.	Convergence of interest rates, 1999-2008	102
IV.2.10.	External assets and liabilities of the new Member States, 2000-2007	102
IV.2.11.	Loans to private sector in 2004 and 2008	105
IV.2.12.	Loans to households by purpose in 2004 and 2008	106
IV.2.13.	Foreign currency denominated loans to households and corporations in 2004 and 2007	106
IV.2.14.	External loans of BIS reporting banks in 2004 and 2008	106
IV.2.15.	Claims of selected old Member States on new Member States, 2004- 2008	107
IV.2.16.	Private savings/investment balance and net lending/borrowing in 2004 and 2008	108
IV.2.17.	Private consumption and private investment in 2004 and 2008	109
V.1.1.	Harmonised unemployment rates in the EU, 2000 and 2007	115

V.1.2.	Employment and GDP growth	116
V.1.3.	Labour market performance in the old Member States, 1995-2007	117
V.1.4.	Labour market performance in the new Member States, 1990-2007	118
V.1.5.	Overall employment rates in the new Member States	119
V.1.6.	Employment by age and skill level	119
V.1.7.	Job vacancy rate in the new Member States, 2005 and 2007	120
V.1.8.	Nominal unit labour costs and its components	121
V.2.1.	Nationality of recent intra-EU movers, 2007	123
V.2.2.	Recent intra and extra EU movers and the resident population	125
V.2.3.	Mobility rates by sending country, 2007	126
V.2.4.	Inflow of workers from the new Member States to the UK	126
V.2.5.	Inflow of workers from the new Member States to Ireland	127
V.2.6.	Socio-economic breakdown of recent movers from new Member States to old Member States	128
V.2.7.	Educational attainment of recent movers, 2006	128
V.2.8.	Workers' remittances (incl. compensation of employees), 2006	131
VI.1.	Trade specialisation	140
VI.2.	Average rolling business cycle correlations between old and new Member States	143
VI.3.	Individual rolling business cycle correlations between old and new Member States	143
VI.4.	Rolling correlations of demand components in new and old Member States	145
VI.5.	Rolling correlations of sectoral output in new and old Member States	147
VII.1.1.	Market integration in the new Member States	157
VII.1.2.	Transposition deficit	159
VII.1.3.	Value of public procurement which is openly advertised	160
VII.1.4.	Price convergence between EU Member States	162
VII.1.5.	Price convergence: Comparative changes in price levels over time, 1996-2007	163
VII.2.1.	Fraser index of regulation in product, labour and financial markets	166
VII.2.2.	Share of Member States underperforming in a policy area	171
VII.2.3.	Policies in the employment and micro pillar	174
VII.2.4.	Clusters of countries: performance in policy areas	174
VII.2.5.	Progress in Lisbon strategy: average scores for a set of headline indicators	175
VII.3.1.	Structural budget balances in the new Member States	179
VII.3.2.	Public investment, 2004-08	181
VII.3.3.	Public debt, 2004-08	182
VII.4.1.	Inflation criterion in the new Member States	189
VII.4.2.	General government balance and debt in the new Member States	189
VII.4.3.	Euro exchange rates of the new Member States	190
VII.4.4.	The interest rate criterion in the new Member States	190
VII.4.5.	Catching-up and price level convergence in the new Member States	193
VII.4.6.	Income and price level convergence at euro entry in convergence countries	193
VII.4.7.	Sovereign debt ratings in the new Member States, 2000-2008	194
VII.4.8.	Real short-term interest rates in the new Member States	195
VII.5.1.	Total transfers to the Member States in 2007	197
VII.5.2.	Regional distribution of EU transfers, 2007-2013	198
VII.5.3.	Phasing-in of funds in the area of cohesion for growth and jobs	198
VII.5.4.	EU budget expenditure for direct payments and rural development in the new Member States, 2007-2013	198

VII.5.5.	Net EU transfers and GDP per capita in 2007	199
VII.5.6.	Structural funds (ERDF and ESF): absorption in 2004-2008	202
VII.5.7.	Real agricultural income development in selected Member States, 2000-2007	205

LIST OF BOXES

II.1.1.	Europe Agreements and a common trade policy	14
II.1.2.	Cooperation and Verification Mechanism with Bulgaria and Romania	18
II.2.1.	Pre-enlargement empirical studies on the potential economic impact of enlargement	25
II.2.2.	Did EU accession contribute to growth?	34
II.2.3.	The impact of a decrease in external spreads	37
II.3.1.	Regionalism in Asia	39
II.3.2.	Lessons from the Asian crisis for the new Member States	41
IV.1.1.1.	Inward FDI and potential GDP growth in the EU	85
IV.1.2.	Enlargement and the German economy	91
IV.2.1.	Impact of the global financial crisis on the new Member States	99
V.2.1.	The principle of free movement of workers and transitional arrangements	124
VII.1.1.	Examining price convergence in the enlarged Single Market	164
VII.2.1.	Was there a reform fatigue in the new Member States after enlargement?	168
VII.2.2.	An assessment framework for structural reforms	173
VII.3.1.	Reforms of pension systems in the new Member States	184
VII.4.1.	Euro adoption plans of the new Member States	188
VII.4.2.	The theory of Optimum Currency Areas and the new Member States	192
VII.5.1.	Growth impact of EU support - an assessment with the QUEST model	203

**COMMUNICATION FROM THE COMMISSION TO THE COUNCIL, THE
EUROPEAN PARLIAMENT, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE, THE COMMITTEE OF THE REGIONS AND THE
EUROPEAN CENTRAL BANK**

**Five years of and enlarged EU
– Economic achievements and challenges –**

Adopted by the College on 18 February 2009

Five years of an enlarged EU

– Economic achievements and challenges –

Chapter I

Introduction

INTRODUCTION

The fifth wave of enlargement was a historic step in the reunification of Europe. With ten countries acceding in 2004 and further two in 2007, this enlargement round of the EU was the largest, in terms of both the number of countries and population. Most relevant feature was that it brought together countries which had experienced very different economic, social and political developments. It was a milestone in unifying Europe after several decades of artificial division resulting from the Cold War. Overall, this enlargement was a major success for the EU and its citizens.

The new Member States – through their sheer number and dynamism – have made the EU stronger and culturally richer. The enlargement process has helped build and consolidate democracy after the demise of the communist regimes. It has strengthened European security, by providing a crucial anchor of stability in a period of conflicts and upheavals within and around Europe. It has greatly boosted the economies and improved living standards in the new Member States, thereby also benefiting the old member states notably through new export and investment opportunities. It has strengthened the economy of the Union as a whole, through the advantages of integration in a larger internal market. Enlargement has also enabled the EU to reap more fully the benefits of globalisation. An enlarged EU has more weight when addressing issues such as the world climate change or the international financial crisis.

The integration process raised many doubts, including concerns about the capacity of the EU institutions to absorb the wider variety of opinions that would have to be taken into account in the decision-making process. Questions were raised about the costs of the enlargement, as most of the newcomers had significantly lower income levels than the average of the incumbent Member States. Not surprisingly, EU citizens had mixed feelings and saw risks in terms of their jobs, wages, security and identity. The global financial crisis and economic slowdown is adding another dimension which puts a strain on the integration and convergence already achieved.

Against this background, the aim of the present report is to study the consequences of the latest

enlargement round. The advantages of inclusion, a wider Europe and increased market access will need to be balanced against the costs and challenges of adjustment. Special attention will be paid to the role of multilateral surveillance which the EU can offer in policy formulation. Policy lessons will also be learned on the basis of the experience gathered so far. The report builds on an earlier assessment and accompanying Communication from the Commission entitled "Enlargement, Two Years After – An Economic Success" (European Commission, 2006).

The study specifically responds to an initiative of the Czech authorities to make an event out of five years enlargement during their Presidency in the first half of 2009. While the impact of enlargement in its geo-political or cultural dimensions is difficult to underestimate, the main focus will be on economic aspects, while also including broader issues such as employment, the free movement of persons and competition as well as the role of institutions in economic development.

Enlargement is studied from three perspectives. The first of these is the impact of enlargement on the EU as a whole and its place in the global economy. The EU is more than the sum of its component parts and this study analyses how enlargement has helped the EU to come up with a response to globalisation. Second, the focus is on the recently acceded Member States, in particular on how they have integrated into the EU, what are the drivers of the catching-up process and how the EU has contributed to their development. Third, the impact on the old Member States is assessed, more especially in terms of how the old Member States benefited from gaining access to a larger market, but also how they coped with the competitive pressure created by a number of low-cost countries joining the Single Market. In this context special attention will be paid to the effects of migration and offshoring on the labour market and wage developments.

With respect to country coverage, the report includes Romania and Bulgaria where possible. Usually, the EU-15 countries are used as a benchmark, but often other reference points are also included where relevant. The analysis focuses on the five-year period between 2004

and 2008 and compares this with the previous five years. However, in many cases a longer time perspective is presented in order to understand developments and gain the measure of the anticipation effects.

On 13 and 14 November 2008 the Directorate General for Economic and Financial Affairs in co-operation with the Bureau of European Policy Advisers and the Directorate General for Enlargement organised a workshop entitled "Five years of an enlarged EU – a positive sum game" (for more information, see DG ECFIN's website, past events). The purpose of that workshop was to check the findings and main messages emerging from the study in progress. At that workshop, researchers from academia and think tanks presented their views on enlargement which were a source of inspiration for the final version of the report.

The report is structured in 7 chapters, preceded by an executive summary which has been adopted by the Commission and issued as a Communication. After this introductory chapter, Chapter 2 presents the achievements and experiences of five years of an enlarged EU in three sections. Each section is devoted to a particular dimension, namely: The enlarged EU in the world; Economic performance in an enlarged EU; and Does the EU make a difference?

Related to the motto of the Czech Presidency, "Europe without barriers", the report makes a link to the four freedoms (the free movement of goods, services, capital and persons) in an enlarged EU. This is done in Chapters 3, 4 and 5 (with the free movement of goods and services being covered in Chapter 3). These chapters analyse how the basic freedoms have operated in practice and how both the old and the recently acceded Member States have adjusted to them. These three chapters deal with two recurrent themes: first, an analysis of the international dimension of the four freedoms with a focus on the drivers of integration and, second, an analysis of the consequences for the functioning of domestic markets with a focus on the role of restructuring, competitive pressure and adjustment.

Thus, the first section of Chapter 3 deals with trade and catching-up, while in the second section an assessment of the goods markets in the new Member States is made with the old Member States as a benchmark. Chapter 4 examines the free movement of capital; first, the focus is on foreign direct investment and integration, then on financial sector development. Chapter 5 analyses first the broad trends in labour markets followed by a discussion of labour mobility.

These three core chapters set the scene for Chapter 6 which assesses the extent to which the recently acceded countries are integrated into the EU as compared to the world at large by focusing on the synchronisation of business cycles.

Chapter 7 spells out the EU policy framework and how it is affected by enlargement and how it is applied to the recently acceded Member States as well as its contribution to their catching-up process. Five sections deal with the key policy areas: (i) the Single Market, (ii) the Lisbon process, (iii) fiscal surveillance, (iv) Economic and Monetary Union and (v) the role of EU transfers.

Chapter II

Five years in the EU: achievements and experiences

SUMMARY OF MAIN FINDINGS

The fifth enlargement was different from the others as it was the largest in terms of the number of acceding countries and the size of their population. Most importantly, on average the recently acceded countries had significantly lower levels of income than the average of the incumbent Member States compared to the countries that had joined the EU previously. It made the integration process a formidable challenge, for both the new and the old Member States, but at the same time provided notable opportunities for the individual countries and the EU as a whole.

In order to prepare for such a major accession, the process officially started as early as 1993, when the invitation to apply for membership was issued by the Copenhagen European Council which set out the so-called Copenhagen criteria. These included conditions of an economic, political and legislative nature which had to be met before membership could be considered. Because of the challenges involved, citizens' support for enlargement in the EU-15 countries has been mixed and volatile both before and after the fifth wave of enlargement, in contrast to economic studies which generally came up with positive results.

While the newly acceding Member States accounted for about 21% of the EU population, they contributed only about 7% of GDP. As economic growth in the new Member States is significantly stronger, the initial income gap relative to the EU average is narrowing. However, the benefits of the fifth enlargement are primarily not due to the slightly higher overall weight of the EU-27 in world GDP (by around 2.5 percentage points in purchasing power standards), but to the synergies and economic dynamism that this association of Member States has made possible, enabling better answers to be formulated to address the challenges posed by globalisation.

After a transition related recession in the early nineties, the economies of the new Member States stabilised and received a boost to their growth in the second half of the nineties in the light of accession which had become a distinct possibility. Output growth accelerated further on EU entry in 2004, accompanied by strong job creation in most countries after several years of

labour shedding related to economic restructuring. In the 5 years after accession, average GDP growth in the new Member States amounted to 5½ %, compared with 3½ % in the preceding 5 years, while growth in the old Member States remained at around 2¼ %. In line with the global slowdown brought about by the credit crisis in the US and rising energy and commodity prices, activity weakened in 2008, particularly in the Baltic States.

Key drivers of the growth process in the new Member States were trade openness, foreign direct investment and an overall improvement in the institutional framework to which accession contributed decisively. These factors led to an acceleration of productivity growth, which is the basis for an enduring increase in the standard of living.

Based on growth regression analysis, it is estimated that each year during the period 2000-2008 accession gave the new Member States an extra growth boost of around 1¼ % on average. This compares favourably with the Commission services' ex ante estimate in 2001 of 1.3% additional growth in a central scenario, but falls short of the 2.1 % proposed in the optimistic scenario. Possible elements of the success were the productivity improvements due to FDI and the associated transfer of technology. Model simulations suggest that the narrowing of the interest rate spread was also of particular importance. It appears that the new Member States enjoy a 50-100 basis point advantage relative to other emerging countries with comparable fundamentals. This contributed 0.3 % of additional growth, although the new Member States will no longer be able to count on this in the near future, as risk premia have risen as a consequence of the outbreak of the financial crisis in 2007.

The stronger growth performance enabled the new Member States to catch up in terms of GDP per capita from some 40 % of the EU-15 average five years before enlargement to 52% in 2008. The real convergence process in some countries was faster than in others, highlighting the importance of having the appropriate policies in place. Starting from low income levels, catching-up - supported mainly by a boom in demand - appeared particularly impressive in the Baltic

States, but the overheating that followed has been taking its toll since 2007. At the other extreme, growth in Malta was not strong enough to close the relative income gap, underlining the fact that catching-up cannot be taken for granted. Slovenia was one of the countries with the smoothest growth path.

Growth in the old Member States was about half that observed in the new Member States, with weak performances in some larger countries, but this cannot be attributed to enlargement. On the contrary, the old Member States benefited from the growth pole formed by their neighbours. Ex ante estimates made by the Commission in 2001 indicated an additional growth stimulus of 0.5 % or 0.7 % at the end of the period examined, namely 2009. These numbers could not be verified, but what is clear is that those EU-15 countries with higher growth rates in their FDI and trade activity with the new Member States have also enjoyed larger increases in their real per capita GDP growth rates.

Per capita GDP growth in the new Member States since 2000 has been stronger than in some emerging market economies in Southeast Asia which are going through a similar catching-up process and are subject to the same global trends. This suggests that the EU context makes a difference as compared to the looser regional arrangements among the Southeast Asian countries. In particular, the EU had a favourable influence on the quality of institutions. Furthermore, EU membership helped overcome the lack of savings in the new Member States. This led to a catching-up model based on capital imports, that prompted current account deficits and appreciation of real exchange rates. However, the strengthening currency did not depress the export performance of the new Member States as inflows of foreign direct investment allowed a quality upgrade of the export basket. By contrast, since the 1997 financial crisis the catching-up approach practised by the Southeast Asian countries has relied on cheap currencies and current account surpluses.

On the whole, the relative income gap between countries is closing, but the distribution of the enlargement dividend within the countries is not proportional, with some regions benefiting more

than others. This is due to the fact that capital and skilled labour tend to concentrate in a limited number of regions during the initial phase of the catching-up process. When a certain stage of development is reached, knowledge spill-overs and the disadvantages of agglomeration (e.g. labour shortages) come to the fore and a more balanced income distribution is likely to be achieved.

Real convergence went hand in hand with considerable progress in nominal convergence as inflation rates, interest rates and government deficits approached the levels that were being seen in the old Member States. However, from mid-2007, as a consequence of the financial crisis, macro-financial stability came under pressure in several new Member States with Hungary and Latvia asking for balance of payments support to overcome liquidity constraints. This reassessment of risk in emerging markets, in turn, is leading to a significant contraction in economic activity in many new Member States of some are likely to see, at least temporarily, a widening of the income gap with their richer neighbours in the EU.

1. ENLARGEMENT AND THE EU IN THE WORLD

The fifth wave of enlargement was not only the largest ever in terms of the number of countries and population joining the EU ⁽¹⁾, but also the most complex, as it brought in countries whose economic, social and political backgrounds had been very different. This round of enlargement had a major impact on the EU as a whole and on its place in the global economy, and it is fair to say that it caused mixed reactions. While many citizens welcomed the arrival of new members as a chance for Europe to become stronger, more competitive and better able to defend its interests on the world stage in the era of globalisation, others saw it as a threat to their identity, their security, or their jobs.

The success of this endeavour needs to be judged against the background of the huge challenge of reuniting Europe in the aftermath of the fall of the communist and socialist regimes in the East. Given that - except for Cyprus and Malta - the aspiring EU members were former communist and socialist countries with centrally-planned economies, some fundamental transformations were necessary that would allow these countries to adopt the 'acquis communautaire' and integrate into the EU's system of political and economic governance. That is why the accession process officially started as early as 1993, when the Copenhagen European Council issued the invitation to apply for membership. The European Council set out the "Copenhagen criteria", which were the economic, political and legislative criteria that applicants had to meet before membership could be considered. Enlargement has conferred significant benefits on all parties involved by anchoring the economic and political life of the new Member States. The EU represents a new model of cooperation and of economic organisation in a union of sovereign states that share democratic values and adhere to the principles of a market based economy. Throughout the years, the EU has fostered respect for a democratic and liberal political culture based on the rule of law, and this

has contributed to the widening of the continent's prosperity.

This chapter is structured as follows: Sections 1.1 and 1.2 present an overview of the milestones of this wave of enlargement and the initial expectations among the public and experts. Section 1.3 summarises the main characteristics of the EU's economic governance system so as to better understand the rationale for the Copenhagen economic criteria and the challenges associated with accession and transposition of the acquis. Section 1.4 goes a step further by highlighting the main challenges and opportunities deriving from enlargement for both the new and the old Member States. Finally, sections 1.5 and 1.6 focus on the international dimension of the enlargement process.

1.1. MILESTONES OF THE FIFTH ENLARGEMENT

As early as 1991, the EU signed the first "Europe Agreements" with Hungary and Poland, followed by the other Central and Eastern European candidate countries. Cyprus and Malta had already signed "Association Agreements" in the beginning of the 1970s. Thanks to these agreements, trade was gradually liberalised, thus avoiding any trade shocks in May 2004 and in January 2007 (Box II.1.1). The overall economic integration of the candidate countries took place during the 1990s and early the following decade in a similar way, that is to say it was virtually completed by the dates of accession.

Accession negotiations started officially in March 1998 with six of the candidate countries (the Czech Republic, Estonia, Hungary, Poland, Slovenia and Cyprus), and in October 1999 the negotiations were widened to include Bulgaria, Latvia, Lithuania, Malta, Romania and Slovakia. The first ten acceding nations concluded the accession negotiations by December 2002 and signed the Accession Treaties in April 2003. Negotiations with Bulgaria and Romania continued for a further two years and were finalised by December 2004, allowing the Accession Treaties to be signed in April 2005. Following the approval of the Treaties by each of the acceding Member States and ratification in

⁽¹⁾ On 1 May 2004, ten countries (Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia) with around 75 million people joined the EU, followed on 1 January 2007 by two more countries (Bulgaria and Romania) with their close to 30 million citizens.

Box II.1.1: Europe Agreements and a common trade policy

The Europe Agreements had a political and economic motivation and were signed on bilateral basis. They were adapted to the specific situation of each partner state, while setting common political, economic and commercial objectives and formed the framework for implementation of the necessary accession reforms. The trade provisions of the Europe Agreements aimed to establish, over a period of ten years, a bilateral free trade area between the EU and each country and dialogue modalities between governments and community institutions. Consequently, at the date of accession, trade between the new members and the EU was already almost fully liberalised.

As of the day of accession, the new Member States started applying the EU's Common Commercial Policy. This implied taking over all EU multilateral commitments and obligations (including plurilateral agreements such as the Government Procurement Agreement), bilateral agreements, the common external tariff (including unilateral preferences) and the EU trade defence measures.

Enlargement can be said to have led to more open world trade. The EU's most-favoured-nation tariffs are in general lower than those applied in the acceding countries and the EU had a vast network of contractual or unilateral preferential trading arrangements. For example, the EU's average applied most-favoured-nation tariff of about 6.5% could compare favourably to that of around 11% in Slovenia in 2001 or 12% in Bulgaria in 2003. Compared to the situation before enlargement in 2004, today twelve more countries apply the EU's Generalised System of Preferences, including the "Everything but Arms" initiative which provides duty and quota free access for all goods from least developed countries (phase-in periods for certain products will end in 2009). The same holds for the EU's bilateral agreements with e.g. countries in the Western Balkans, Chile, Mexico and South Africa. The benefits of enlargement for third countries lie in a single set of trade rules, a single tariff, and a single set of administrative procedures across the enlarged EU with a population close to 500 million people and a GDP of around €12,250 billion.

the EU Member States' legislatures, the official dates for enlargement were set for 1 May 2004 for the first ten new Member States and 1 January 2007 for Bulgaria and Romania. Four of the new Member States have already joined the euro area: Slovenia on 1 January 2007 and Cyprus and Malta one year later, while Slovakia was the fourth to join as of 1 January 2009.

Negotiations covered 31 chapters of the *acquis* and were particularly difficult and complex. A key principle in the negotiations was that no permanent derogation from EU rules was to be accorded to the acceding nations. Because of the technical and practical difficulties in making all the necessary adjustments and bearing the adjustment costs, transitional periods ranging from 6 months to 12 years were introduced prior to the full adoption of the '*acquis communautaire*'. The areas primarily concerned are environment, agriculture, social and employment policies, transport, energy and the free movement of labour, services and capital. These transitional periods, and in particular the

restrictions on the free movement of labour, have clearly interfered with the proper functioning of the internal market. With respect to labour markets, the so-called "2+3+2 year arrangement" required the EU-15 states to declare in May 2006, and again in May 2009, whether they will open up their labour markets to workers from the new Member States; there are exceptions for Cyprus and Malta, which are not part of the scheme.

A significant area of the negotiations and of the accession process was concerned with financial support for enlargement. The availability of EU funds – both a policy instrument and an expression of EU solidarity – provides an opportunity for the new Member States to improve competitiveness and strengthen the catching-up process. Furthermore, upon accession, Member States also benefit from significant transfers in the area of agriculture and cohesion policy, as well as from a wide variety of programmes in different areas of EU policy. For the period 2004-2006, the December 2002

Copenhagen European Council adopted an appropriation of €40.9bn for the ten acceding nations (about 2.3% of their annual average GDP). In the latest Financial Perspective, covering the period 2007-2013, the amounts for the twelve new Member States have been increased to about 3% of their annual GDP. While these amounts may be considered as a tolerable burden for the old Member States, from the point of view of the recently acceded Member States these are very considerable sums. In 2007, about €17.8 billion were transferred to the new Member States, representing around 2.1% of EU-12 GDP and only 0.2% of the EU-15 GDP. Clearly, the extent to which the new Member States will be able to utilise the leverage potential of EU transfers in order to move onto a higher growth path in the long run will depend on their absorption capacity and, in particular, on the quality of their domestic policy environment.

The accession of the new Member States had a palpable impact on them, both before and after they joined the EU. The prospect of membership spurred reforms and set a firm economic and political course towards the fundamental liberal and democratic values that are shared in the EU. These values were embodied in the Copenhagen criteria. After accession, both the new and incumbent Member States have experienced a further reallocation of economic activities resulting in significant benefits from a better allocation of resources. The new Member States are benefiting from the EU's solidarity principles which imply significant transfers of EU funds, while the incumbents have access to a large internal market and a large potential supply of labour. In addition, the obligation to adopt the common currency requires vigorous efforts to achieve nominal convergence in the new Member States, which so far has fostered positive economic outcomes, as confirmed by the countries which have already joined the euro area and met the relevant criteria (Cyprus, Malta, Slovakia and Slovenia).

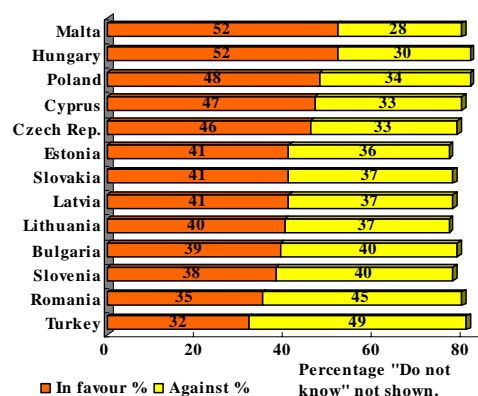
1.2. EXPECTATIONS REGARDING THE FIFTH ENLARGEMENT

The results of several studies conducted in the run-up to the 1 May 2004 deadline were broadly consistent in showing notable benefits from

enlargement for both the new and the old Member States (Box II.2.1 in the next section). Contrary to the positive findings of economic research, the initial expectations and perceptions of the public in relation to the perceived benefits of the fifth enlargement were mixed.

The citizens' support for enlargement in the EU-15 countries was volatile both before and after the fifth wave of enlargement. There has been evidence that the perception of enlargement is influenced not only by a sense of community and affinity, but also by other, less altruistic motives where factors related to personal welfare and well-being play an important role. A survey carried out in November 2002 (Graph II.1.1) shows that public opinion in the EU-15 countries favoured enlargement to Malta, Cyprus and the wealthier economies among the former communist and socialist countries. In addition, geographical and/or cultural proximity seemed to play an important role, putting the more distant countries, such as Bulgaria and Romania, at a disadvantage. Also, the countries of the former Yugoslavia seemed to be relatively unknown to the public in the old Member States, as was confirmed, for example, by weaker support for Slovenia's entry into the EU.

Graph II.1.1: Support for enlargement, Autumn 2002

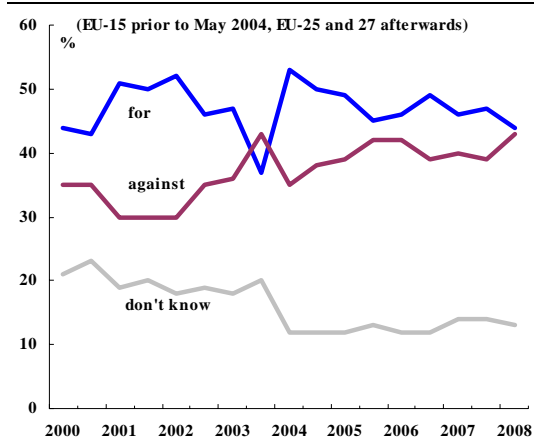


Source: Standard Eurobarometer 58

Sentiment about enlargement in general fluctuated considerably (Graph II.1.2). Support for enlargement peaked above 50% in the period between autumn 2001 and autumn 2002. Subsequently, it began to decline as the EU economy entered a period of slow growth and the enlargement date approached, until those in

favour were slightly outnumbered by those against in spring 2004. Nonetheless, strictly related to the accession of the ten new Member States in May 2004, the public opinion was still favourable. The surveys conducted after the accession of the ten new Member States reflect a state of mind more favourable to enlargement from those countries, so that once again more than 50% of the EU citizens were taking a positive view of enlargement in the autumn of 2004. But again, support for enlargement continued to fall after accession and hit a fairly low 44% in the autumn of 2008.

Graph II.1.2: Opinions on enlargement



Source: Eurobarometer, Issues 54 to 68

Overall, the initial expectations around the benefits of enlargement to the East were positive, among both experts and the public, and especially in the new Member States. As the remainder of the study will show, this optimism proved to be well founded. Moreover, a survey carried out in 2008 reveals that close to half of the EU citizens (48%) consider that enlargement from 15 to 27 countries has strengthened the European Union and just over a third of Europeans (36%) think that enlargement has weakened it. Again, enlargement is viewed very favourably in the new Member States, whereas in the old Member States, views are more divided (44% "strengthened" vs. 40% "weakened"). However, the various benefits associated with the fifth wave of enlargement came at a cost in terms of adjustment, which gradually translated into the current 'enlargement fatigue'. Nonetheless, the enlargement policy continues to be supported by a relatively large share of the

EU population, even in the current difficult context of economic slowdown and global financial distress.

1.3. EU ECONOMIC GOVERNANCE

The EU's governance system is designed to allow the pursuit of key economic policy objectives set out in the Maastricht Treaty, aiming at sustained non-inflationary economic growth, a high level of employment and the smooth functioning of the EMU. The system is based on the 'four freedoms' relating to the movement of goods, services, capital and labour in the European Union, and it comprises two main pillars – the Lisbon strategy and Economic and Monetary Union.

The Copenhagen economic criteria are derived from the main characteristics of the EU's system of economic governance. Given the socialist legacy of many of the economies of the candidate countries, the European Council regarded the approximation of their economic systems to those of the Member States as a prerequisite for a smooth integration into the EU Single Market and a sustainable catching-up in living standards. Therefore, from an economic viewpoint, entry into the European Union signified (i) a fully functioning open market economy capable of withstanding free competition, (ii) the adoption of the economic legislation included in the 'acquis communautaire', most notably the rules of the Single Market and (iii) a commitment to the future adoption of the euro. At the same time, the political Copenhagen criteria require candidate countries to achieve stability of institutions guaranteeing democracy, the rule of law, human rights and respect for, and protection of, minorities.

The Lisbon Strategy, one of the two main pillars of the EU's system of economic governance, relates to specific objectives of economic reform. It concentrates on creating growth and jobs and brings together at national level and at Community level all the necessary reforms in employment and in macro- and micro-economic policies. This Strategy is based on the proper functioning of the Single Market and of labour

markets, as well as on the strengthening of competition.

The second main pillar of the economic governance system is the Economic and Monetary Union. A single monetary policy is entrusted to the Eurosystem, comprising an independent, supranational European Central Bank (ECB) and the national central banks of the euro area, while the responsibility for other economic policies remains decentralised in the hands of national (or sub-national) authorities, but subject to common rules. The Eurosystem formulates a single monetary policy in the light of developments in the euro area as a whole, pursuing its primary objective of maintaining price stability. On the other hand, responsibility for fiscal policies, labour market and employment policies and many microeconomic and structural policies remains largely with the national or sub-national authorities. This builds on a strong tradition of "subsidiarity", which gives the responsibility for policy to the Member States wherever possible. This nonetheless requires a certain degree of coordination in order to take advantage of spill-over effects. Consequently, a coordination framework – the Stability and Growth Pact – has been set up to foster the pursuit of common objectives against the background of economic integration and interdependence.

The new Member States have joined the EU as "Member States with derogation" (i.e. they have no opt-out clauses regarding the adoption of the euro). This means that they did not adopt the euro immediately upon accession, but will do so when they meet the necessary conditions. Indeed, all of the new Member States are committed to adopting the euro and their policies are geared towards achieving the necessary degree of convergence with the euro area.

The transposition of the *acquis* represents a critical challenge for the recently acceded Member States and it is directly linked to their participation in key policy areas of the EU, such as agriculture, environment, transport and energy, social matters, the judiciary and employment. Transitional periods of up to 12 years were allowed in certain critical areas. Moreover, some new Member States had to make particular efforts in order to comply with

political criteria, such as the rule of law. For Romania and Bulgaria, a special Cooperation and Verification Mechanism was set up to assist them even after accession to complete judiciary reforms and strengthen the fight against corruption and organised crime (Box II.1.2).

1.4. CHALLENGES AND OPPORTUNITIES FOR THE NEW AND OLD MEMBER STATES AND THE EU AS A WHOLE

In terms of joining the European Union, the principal challenge for the new Member States initially was to achieve the transition to a market economy or to make sufficient progress in that direction, and to comply with the Copenhagen economic criteria. To that end, economic policies focused on achieving a high degree of macroeconomic stability, closely followed by a vigorous implementation of structural reforms to foster an economic environment favourable to private sector activities. For the most part it was the old Member States that were faced with the challenge of adjusting the structure of their economies following the integration of low wage economies in the Single Market. Viewed in broader terms, this adjustment which was triggered by globalisation represents both a challenge and an opportunity for all the EU economies. Indeed, in preparing for the 2004 enlargement, the EU experienced at first hand the challenges and possibilities that globalisation would ultimately bring for open economies.

New Member States

In retrospect, the reform agenda of the recently acceded Member States appears to have been defined by four priorities: (i) macroeconomic stabilisation, (ii) privatisation and restructuring of enterprises, (iii) improving the business environment, and (iv) upgrading the performance of labour markets. These priorities all support the overarching objective of raising productivity growth and accelerating real convergence in order to raise living standards and improve economic and social cohesion and welfare in a sustainable manner.

First, all acceding countries had achieved a sufficient degree of macroeconomic stability by the time of accession, regardless of their

Box II.1.2: Cooperation and Verification Mechanism with Bulgaria and Romania

When Bulgaria and Romania entered the EU on 1 January 2007, shortcomings remained in judicial reform, the fight against corruption and for Bulgaria also in the fight against organised crime. These shortcomings entailed the risk that both countries would not be able to correctly apply community law and that the people of Bulgarians and Romania would not be able to fully enjoy their rights as EU citizens. In order to assist Bulgaria and Romania to remedy these shortcomings and, at the same time, monitor the progress made, a Cooperation and Verification Mechanism was set up.

Since then, the Commission established a close dialogue with both countries and organises regular missions together with independent experts during which it meets all relevant governmental and non-governmental institutions. Both countries have adopted an action plan and report regularly on progress.

The Commission has adopted first reports on progress in both countries in June 2007 and an updated report in February 2008. A third set of reports was adopted by the Commission on 23 July 2008. On the same day, the Commission also adopted a special report on the management of EU funds in Bulgaria. The Council takes a close interest in the Cooperation and Verification Mechanism and has adopted Council Conclusions each time the Commission has issued a report. The last conclusions adopted on 15 September 2008 acknowledge the efforts of both countries and encourage Bulgaria and Romania at the same time to intensify their efforts by demonstrating tangible and lasting results.

Further information on the Cooperation and Verification Mechanism can be found at the following website:
http://ec.europa.eu/dgs/secretariat_general/cvm/index_en.htm

exchange rate arrangements or macroeconomic performance in the initial stages of transition. Inflation rates have come down to single digits in all EU-12 economies and public finances have been largely consolidated. On the other hand, the process of rapid credit growth combined with large capital inflows has resulted in large external imbalances, particularly in the Baltic countries and Bulgaria (also as a result of their pegged exchange rates). Securing an orderly unwinding of external imbalances remains a challenge to macroeconomic stability and growth, particularly given the current financial market turmoil.

Second, the privatisation, restructuring or liquidation of non-viable, state-owned enterprises was an economically and politically difficult task, and the candidate countries taking part in the fifth enlargement accomplished it at different speeds. The economies which advanced more rapidly in transition, such as Hungary, Poland, Czech Republic, Slovakia and the Baltic countries, were able to attract a critical mass of FDI and reach higher growth rates at an earlier stage. Other countries, such as Romania and Bulgaria, where reforms had been implemented

in a “stop-go” manner, did not push ahead with the economic catching-up process until after 2000. Slovenia was a somewhat special case because of its gradualist approach to reforms and its weak reliance on FDI inflows.

Third, while the business environment in the new Member States gradually improved throughout the period leading up to and following accession, it is still not as favourable as in the old Member States (World Bank, 2009). In 2005, the World Bank study reports that the gap between the average ranking of incumbent and new Member States was 15 points; in 2008 this had improved to only 13 points. Most of the recently acceded Member States are currently seen as destinations where business can be conducted easily and, as such, they even rank higher than some of the incumbent Member States. Nonetheless, challenges in terms of making further improvements in the business environment remain, in particular in areas such as issuing licences, employing workers, paying taxes and closing a business.

Finally, the most pressing challenge still seems to be how to improve labour market

performance, particularly in the context of the ageing process. The labour participation and employment rates are still lower than in the incumbent Member States and the persistently high levels of unemployment and the concentration of unemployment among certain groups and regions suggest that structural rigidities are continuing to hamper the smooth functioning of the labour markets in the new Member States. There are still gaps between the levels of education and training in the old and the new Member States, as witnessed inter alia by the results of the Programme for International Student Assessment (OECD, 2007). This has adverse effects on the availability of skilled labour in the new Member States. Critically, despite having achieved substantial gains in labour productivity in recent years (which reflects some shedding of labour), productivity levels in the new Member States continue to be substantially lower than those in the incumbent Member States, as is illustrated by the income differential.

Old Member States

The old Member States have also been confronted with various challenges during and after the fifth enlargement. Serious concerns have been widely expressed about job security and the impact of enlargement on incomes. A survey from 2002 (Eurobarometer 56.3) revealed that only 29% of the EU-15 citizens believed that enlargement would help create jobs in their country. At the same time, a large percentage (48%) of those Europeans surveyed considered that enlargement would trigger a major wave of migration from Central and Eastern Europe. Around 70% of respondents were worried about such a development, fearing an increase in unemployment and crime, and a lowering of living standards. Another survey on enlargement carried out in 2006 (Special Eurobarometer 255) highlighted broadly similar concerns related to employment, relocation to countries with cheaper labour, and immigration. These views provided a stark illustration of the need to adjust to competition from the lower wages, skilled labour force and strengthening market economies in the new Member States.

The EU as a whole

These concerns were by no means unique; in fact, they constitute a family of issues that have emerged through Europe's encounter with the broader process of globalisation. In reality, the adjustment challenge posed by the fifth enlargement is not so very different from the structural changes that are called for in the vigorously unfolding process of globalisation. Indeed, many EU-15 industries and companies took advantage of the favourable cost differentials of the new Member States, good location opportunities and cultural ties by splitting their production chains and engaging in vertical specialisation. This allowed them to enhance their world-wide competitiveness and conquer new markets globally. The examples of the automotive industry, which expanded in Poland, the Czech Republic, Slovakia, Hungary and Romania, and the ICT industries moving into Hungary and the Czech Republic, are quite instructive in this regard.

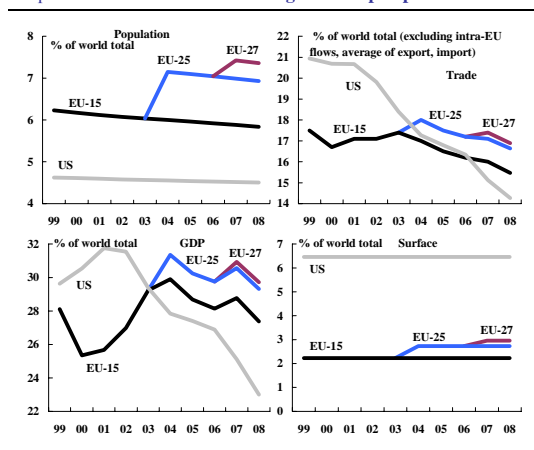
It is therefore clear that the main economic benefits of the fifth enlargement are not primarily the result of the slightly higher overall economic weight of the EU-27 in the world economy, but the result of the synergies and economic dynamism that this association of Member States has made possible. In addition, the rapid economic transformation of the new Member States, for example, in the area of energy liberalisation, direct tax competition or labour market reforms, has also put pressure on the EU-15 countries to bring forward more vigorously the reforms that are necessary to modernise their social security systems, improve the business environment and raise the quality of public finances – all of which form part of the Lisbon strategy. As a result, significant dynamic economic benefits have accrued to both the new and the incumbent Member States, which are associated with reforms and greater specialization across a market of 500 million consumers.

1.5. THE ENLARGED EU IN THE GLOBAL ECONOMY

While the new Member States accounted for about 21% of the EU population, they contributed only about 7% of GDP. In 2007 their per capita income reached EUR 8,330, as

compared to the EU average of EUR 24,810 (Table II.1.1). This represents about one third of the EU average, whereas it had been one quarter three years earlier. With economic growth significantly stronger in the recently acceded Member States, the initial income gap between them and the EU average is narrowing. Equality of income distribution - at 0.3 - is better achieved in the EU, with Japan being the only non-European country that has a lower Gini coefficient (Table II.1.1). The Gini coefficient is used to measure income inequality within a population, and ranges from zero (total equality) to one (where all the income accrues to one person) (World Bank 2008, World Development Indicators).

Graph II.1.3: The EU after enlargement in perspective



Source: Commission services (AMECO), IMF

The accession of these new Member States has added 1.6 percent of the world's population to the EU, bringing its share of the world population in 2007 to about 7.5 percent (Graph III.1.3). When land surface is also taken into account, the EU is a relatively densely populated area of the world. However, demographic trends are less favourable and point to a 20 percent decline in the population of the recently acceded Member States by 2050 (against an increase of 2% in incumbent Member States). On aggregate, the EU's share of world population is projected to fall to 5.2 percent by 2050 from 7.5 percent in 2007. Demographic trends are more favourable for the US and other high income countries, and even more so for emerging economies, and this has implications for the economic growth potential. With 2.1 percent of world GDP, the

economic weight of the recently acceded Member States was larger than their share in the world's population, bringing the enlarged EU up to a level of 30.8 percent in 2007. Measured in PPS terms, the contribution of the new Member States is more substantial (Table II.1.1).

The EU is an open economy and the fact that twelve more countries now fall under a single set of trade rules, a single tariff, and a single set of administrative procedures across an enlarged EU has facilitated trading for the EU's partner countries. On aggregate, the EU is the world's largest trader. In 2007, EU imports amounted to 18.0% of world total imports and EU exports to 16.8% of world total exports (Table II.1.1). The recently acceded Member States contributed 1.6 and 1.2 percentage points to the EU's shares of world imports and exports respectively. Although the new Member States' share of world trade is rising significantly over time and trade figures are higher compared to the period before the latest enlargement in 2007, the EU share of world exports fell from 18 percent in 2004 to 16.8 percent in 2007, as very dynamic emerging economies such as China and India have gained importance on the world market.

It should be noted that these figures do not include intra-EU imports and exports, the volumes of which are roughly twice that of extra-EU imports and exports. If these flows were to be taken into account, after the 2004 enlargement the EU share of world imports and exports would be more than 40%. With enlargement, trade is rising particularly within and with the new Member States. While intra EU-15 exports increased by 20.7% between 2004 and 2007, intra EU-10 exports increased by 180.7% and exports between EU-15 and EU-10 increased on average by 84.2%.

Confronted with the emergence of new competitors on the world market, the EU has performed fairly well compared to the United States or Japan, based on the results of a recent comprehensive market share analysis (Cheptea, Fontagné and Zignago, 2008). This is partly due to an upgrading of its products and to a more pronounced deepening of the division of labour within its integrated economic space. As the development of intra-EU trade indicates, a rapid reorganisation of the specialisation is taking

Table II.1.1: The enlarged EU in the global economy, 2007

	EU-27	NMS	US	Japan	China	India	world
Population, million	494	103	302	127	1 320	1 123	6 612
average % change, 2000-2007	0.4	-0.3	1.0	0.1	0.6	1.4	1.2
% of world total, 2007	7.5	1.6	4.6	1.9	20.0	17.0	100
million, 2050	479	82	402	103	1 409	1 658	9 191
% of world total, 2050	5.2	0.9	4.4	1.1	15.3	18.0	100
GDP current, billion EUR	12 243.1	852.8	10 093.5	3 198.6	2 397.1	855.8	39 717.9
% of world, current	30.8	2.1	25.4	8.1	6.0	2.2	100
% of world, PPS	22.2	2.6	21.1	6.5	10.8	4.7	100
GDP/capita in EUR	24 810	8 330	33 464	25 034	1 816	762	6 007
in PPS, average % change 2000-2007	2.5	6.2	1.5	2.1	11.2	7.7	2.6
real GDP, average % change 2000-2007	2.1	4.7	2.4	1.5	10.2	7.6	3.1
Gini coefficient	0.3	0.3	0.4	0.3	0.5	0.4	:
Share of world imports (excluding intra-EU)	18.0	1.6	18.6	5.6	8.8	2.2	100
Share of world exports (excluding intra-EU)	16.8	1.2	11.5	7.0	12.0	1.5	100
FDI inflows, % of world total	46.4	4.5	13.4	:	5.8	:	100
excluding intra-EU	19.0	:	20.0	:	9.0	:	100
Stock market capitalisation (% of GDP)	86.8	:	132.6	92.0	:	:	:
Stock trade (% of GDP)	160.8	17.1	308.5	148.4	237.5	94.6	181.8

Source: World Bank (World Development Indicators), Commission services (AMECO), Eurostat

place among old and new Member States and such shifts are likely to strengthen the EU's competitiveness in world markets. However, at Member State level, the performance is mixed. Some Member States (e.g. the UK and the Netherlands) are switching from industry to services, while other Member States (e.g. Germany) remain highly specialised in manufactured goods, recording resilient market shares at world level. Other Member States (e.g. France) have failed to adopt proactive competitiveness policies at the micro level and have lost market share for manufactured products without making a clear transition over to services. The best performing Member States are those which have developed the most overlapping production chains, and these often include partners from the new Member States.

Net inflows of foreign direct investment give an indication of an economy's competitiveness. In the EU, FDI inflows in 2007 reached 46.4 percent of global investments, of which the new Member States accounted for 4.5 percent (Table II.1.1). This compares relatively well with other major economies. FDI inflows to the US reached 13.4 percent and to China 5.8 percent. If the EU were considered as a single economy and intra-EU flows were excluded, the EU's share of global FDI net inflows would shrink to about 19 percent while those for the US and China, for

example, would be 20 percent and 9 percent respectively.

1.6. AN ENHANCED INTERNATIONAL ROLE

Due to its increased weight, the European Union has assumed greater prominence in international fora, as well as in international trade negotiations, since the accession of the new Member States. At the same time, the strengthening of the EU's international presence has compounded some of the problems that already existed in terms of coordinating Member States' positions and the benefit of speaking with a single voice in certain international institutions.

With regard to the external representation of the EU - and, in particular, of the euro area - in the Bretton-Woods Institutions, several observers (Bini-Smaghi, 2004, 2006a and 2006b; Sapir, 2007; European Commission, 2008) have emphasized that the representation could be strengthened if some consolidation were to take place. The current state of fragmentation means that the EU punches below its global economic weight in multilateral fora. This is the main reason why, despite their large aggregate voting share and large number of seats in the IMF the EU countries are perceived as being less influential than the United States, which has only

about half the aggregate quota of the EU. In this context, the increasing economic weight of the emerging market countries feeds a growing perception that Europe is over-represented, in terms of both seats and aggregate voting power (Boyer and Truman, 2005; Truman, 2006; Adams, 2006; Bergsten, 2006), which in turn increases the pressure for reforming the Bretton Woods Institutions.

The situation of the EU's representation in the OECD and the "G groups" (G-7 and G-8) is somewhat different. Since the foundation of the OECD, the European Community has enjoyed a special status in that institution. Under the institutional arrangements of the EC Treaty, in areas of exclusive Community competence, the Commission represents the Community's position and Member States are expected to follow it. The main challenge here is to ensure representation of all EU Member States in the OECD and - pending the achievement of that situation - to facilitate their representation via coordinated positions by the European Community. Some progress has been made, as the Czech Republic, Hungary, Poland and Slovakia were accepted as members of the organisation. Furthermore, in May 2007, the OECD opened accession discussions with Slovenia and Estonia among other countries. A similar situation applies in the case of the G-7 and G-8 groups, where only four Member States are represented and the representation of the European Union is relatively limited. As the new Member States do not currently have any prospect of individual accession to these groups, the best option for their representation appears to be through a cohesive and coordinated voice on the part of the European Union.

The increased economic weight of the EU has strengthened its position as the world's main trading power. The new Member States have brought in new expertise in a number of geographical areas (for example in Eastern Europe, the Black Sea Region, the Caucasus and the Western Balkans) and sectors (for instance energy transit). The enlarged Single Market has further enhanced the EU's attractiveness and influence in multilateral and bilateral trade negotiations vis-à-vis its partner countries. On the other hand, enlargement has created new challenges in terms of deal-making with third

countries and, albeit to a much lesser extent, in terms of internal consensus building.

An EU of 27 Member States has become an even more interesting entity for third countries to enter into Free Trade Agreements (FTA) with. Trade negotiations have recently been initiated with - amongst others - the ASEAN countries, India, South Korea and Ukraine, whilst a number of other countries have also signalled their interest to start such negotiations.

Enlargement has led to a wider diversity of interests of Member States in industry, agriculture and services, thereby making it even more important for the Commission to adequately address the offensive and defensive interests of all Member States in both multilateral and bilateral negotiations⁽²⁾. Traditionally, there is a broad consensus amongst Member States as to the overall principles and priorities of EU trade policy, the main fault line being between those who are prepared to make far-reaching concessions in the agricultural sector in order to obtain concessions from others in the negotiations, and those who are less prepared to do so. The new Member States tend to reinforce the latter position, which obliges the Commission and the Presidency to put more resources into consensus-building, although this does not dramatically change the way in which the various interests are balanced out.

The increased influence of the EU in the world economy and diplomacy extends far beyond what is shown by the statistics. The EU is becoming an economic and political centre of gravity in the emerging international order. The EU's large internal market provides attractive and profitable opportunities for outsiders who wish to access it, yet the rules of access and trade within the EU are determined by the EU itself. It is inevitable that the EU's rules and regulations applying to the internal market will ultimately become more widely accepted by those who wish to access it, in the sense that they become international benchmarks which other nations

(2) However, enlargement has not affected internal consensus building in the anti-dumping and anti-subsidy committees in which the differing interests of the new Member States have balanced out.

must adopt. The enlargement to 27 Member States has effectively enhanced the importance of the EU in this regard. Together with the increasing membership of the euro area, the international role of the EU has grown to an unprecedented degree in recent years.

2. ECONOMIC PERFORMANCE IN AN ENLARGED EU

In this section we will analyse the economic performance of the enlarged EU in an effort to show that, in line with the ex-ante estimates, growth in the new Member States increased significantly following their accession to the EU. The economic expansion, which was partially based on an improvement of the capital stock and an increase in productivity, allowed a narrowing of the income gap between new and old Member States. The old Member States benefited from accession, too, in particular those which increased their foreign direct investment and trade with the new Member States.

However, part of the acceleration in growth in a number of new Member States seems also to have been driven by excessive demand, which resulted in a positive output gap and mostly benefited the financial and construction sector. Moreover, there was a shift in the composition of investment from machinery to housing, a trend which was also observed in some of the old Member States. In 2008, this eventually led to a sharp growth correction. Whether or not this setback in the catching-up process is a temporary one will crucially depend on the orderly unwinding of the macroeconomic balances that have been built up and on the resumption of growth brought about by productivity-enhancing investment and a highly-skilled labour input.

The first part of this section presents the ex-ante estimates of the economic impact of enlargement. The section goes on to look at the changes in income differentials between and within the EU Member States in the pre- and post-enlargement period. It also considers the evolution of GDP growth and its composition in terms of demand, sectoral make-up and production. In conclusion, it analyses the relationship between economic integration and macroeconomic stability.

2.1. EX-ANTE ESTIMATES OF THE ECONOMIC IMPACT OF ENLARGEMENT

With a view to gaining a more concrete idea of the potential effects of enlargement on the new and the old Member States, several empirical studies were undertaken in the run-up to May 2004 deadline (Box II.2.1). Although the studies

followed different methodologies and approaches, their results are broadly consistent with each other and point to the prospect of notable gains from enlargement. Enlargement was expected to be beneficial for all Member States, but especially so for the acceding Member States, partly because of their smaller economic size relative to the old Member States, where the enlargement shock would be proportionately more pronounced, and also because of their lower level of development that would lead to a convergence process. Intensified commercial links, strong foreign direct investment flows, lower risk premiums, greater efficiency as a result of adopting market mechanisms, macroeconomic stability and structural reforms stimulated by membership of the EU were considered to be some of the main factors behind these good results.

A study by the European Commission's Directorate-General for Economic and Financial Affairs (European Commission, 2001) projected additional growth of 1.3/2.1% per year for the new Member States in 1994-2009, while in the old Member States' growth was put at a cumulative 0.5/0.7% higher. Similar orders of magnitude are provided by both Baldwin et al. (1997), who estimated that real income would stay 0.2% higher in the old Member States and between 1.5% and 18.8% in the new Member States, and Breuss (2002) who assessed the average GDP impact at 0.5% for the bulk of the old Member States and at between 5 and 9% for the Czech Republic, Hungary and Poland in 2005-2010. Heijdra, Keuschnigg and Kohler (2004) predicted the overall steady-state welfare impact for the old Member States at 0.3% of GDP. On the other hand, Maliszewska (2004) finds a somewhat lower impact on the GDP equivalent of long-run welfare, a negligible impact on the old Member States, and gains of 7% for Hungary and 3.4% for Poland. Moreover - and this is an important factor - the new Member States would lose 0.1% of GDP if enlargement did not take place.

The impact on individual old Member States varies, with countries on the former eastern border of the EU expected to benefit most from the enhanced opportunities for trade and investment. Germany's GDP could be 0.5%

Box II.2.1: Pre-enlargement empirical studies on the potential economic impact of enlargement

Author	Year of study	Method	Area covered	Results		Period	Any other remark
				Variable	Impact		
R. Baldwin J. Francois R. Portes	1997	General equilibrium model	EU-15	GDP	+0.2 %	Steady state	DE and AT benefit more
			CEEC7 (CZ,HU,PL,SI,SK,BG, RO)	GDP	+1.5/18.8%	Steady state	Lower risk premium is driver for stronger result
			EU-15	Public finance	EUR -19 bn (-0.2% of GDP)	1999	Enlargement includes CZ, HU,PL,SI,SK
F. Breuss	2002	OEF world macroecon. model	13 of EU-15 HU, PL CZ	GDP	+0.5% +8/9% +5/6%	2005-2010 2001-2010 2001-2010	For ES, PT, DK the costs exceed the benefits.
DG ECFIN	2001	Growth accounting analysis	AC-8	GDP growth	+1.3%/2.1%	1994-2009	Central/optimistic scenario. Significant impact in NMS, modest in EU-15.
			CEEC-10		+1%/1.8%	Annual	
			EU-15		+0.5%/0.7%	Cumulative	
M. Grassini R. Bardazzi A. Missale	2001	Multi-sectoral model (INTIMO)	Italy	GDP GFCF Imports Exports	+0.5% +0.3% +0.6% +1.2%	2000-2010	Specialisation scenario reported. Spill-overs double the impact.
B. Heijdra C. Keuschnigg W. Kohler	2002	General equilibrium model	EU-15	Overall welfare in % of GDP	+0.3%	Steady state	Trade, budgetary costs and migration effects are considered.
W. Kohler	2004		Individual EU-15 countries	Overall welfare in % of GDP	+2% (AT)/ -1.3% (PT)	Steady state	Besides PT, also a negative impact in EL, IE and ES.
C. Keuschnigg W. Kohler	2002	Calibrated general equilibrium model	Austria	GDP Contribution to EU budget Exports Consumption Wage	+0.6% +1.6% of GDP +15.9% +0.7% +0.5%	Long-run scenario is reported. Fiscal position improves, despite higher net contributions to EU. Expected wage spread constant. Only immigration of unskilled may widen the wage spread	
C. Keuschnigg M. Keuschnigg W. Kohler	2001	Calibrated dynamic general equilibrium model	Germany	GDP Exports Wage income Skilled and unskilled wage	+0.5% +46.7% +0.5% +0.6%	Long-run membership scenario is reported. Investment led expansion. Expanded activity swells the tax base. Some potential for adverse redistributive effects	
T. Kristensen P. Rørmose Jensen	2001	Structural, dynamic, macro-econometric model of the Danish economy (ADAM)	Denmark	GDP Exports Imports GDP Investment Employment Wage rate	-0.5% +0.6% -0.6% +1.4% +1.3% +1.3% -0.8%	2000-2010 2000-2065 (scenario of neutralised budget effect)	In the long run, positive effects from immigration and productivity outweigh short-term costs.
A. Lejour R. de Mooij R. Nahuis	2001	General equilibrium model (WorldScan)	EU-15 CEEC-7	Welfare effects in % of GDP	+0.1/0.6 +5.3/-1.8	Long-run	Single market/ labour migration
M. Maliszewska	2004	General equilibrium model	EU-15 Hungary Poland	Welfare effects of trade liberalisation in % of GDP	+0.03% +7% +3.4%	Long-run	Base scenario

Source: Commission services

higher in the long run (Keuschnigg et al., 2001) and Austria's 0.6% higher (Keuschnigg and Kohler, 2002) compared to the no-enlargement scenario. Italy is estimated to gain 0.5% of GDP in 2000-2010 (Grassini, Bardazzi and Missale, 2001) and, according to Kristensen and Rørmose Jensen (2001), Denmark's GDP is likely to decrease in the short run (2005-2010) by 0.5%, although it should increase in the long run (2000-2065) by 1.4% above the no-enlargement scenario. Kohler (2004) discerns a large negative steady-state welfare effect in the case of Portugal (1.3% of GDP) and also in the case of Greece, Spain and Ireland; the other old Member States show gains, with Austria gaining the most (2% above the no-enlargement scenario).

As regards the possible negative impact of labour migration on wages and the standard of living of some vulnerable segments of the labour market in the old Member States, aggregate data produced no conclusive evidence. In fact, the wages of both skilled and unskilled labour are likely to increase in the long run by 0.5% in Germany (Keuschnigg et al., 2001) and 0.6% in Austria (Keuschnigg and Kohler, 2002). In Denmark, however, Kristensen and Rørmose Jensen (2001) believe wages would be lower in the long run (2000-2065). Lejour, de Mooij and Nahuis, (2001) estimated that labour migration would have a long-run impact in the old Member States equivalent to 0.6% of GDP, but the outflow of labour would cost the new Member States 1.8% of GDP.

2.2. CLOSING THE INCOME GAP

This section focuses on income inequalities within the EU and analyses whether and how quickly the gap between poorer and richer countries is narrowing over time, and whether convergence between countries comes at the expense of divergence within the countries.

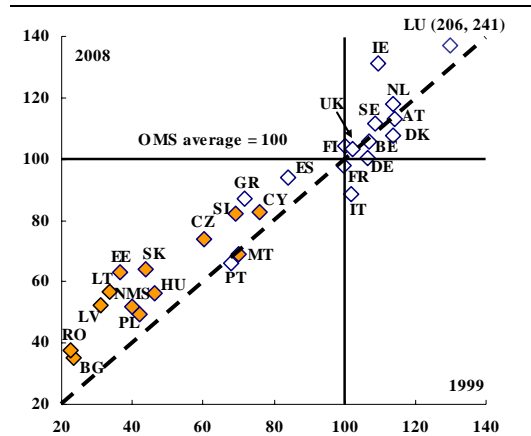
2.2.1. Real convergence and initial per capita GDP

Average per capita GDP in the recently acceded countries amounted to 40% of the average of the 15 old Member States five years before enlargement, reaching 51.7% in 2008 (Graph II.2.1). The largest gap was recorded in Romania

and Bulgaria, where income stood at less than one quarter of the EU-15 average, but has risen to more than one third in the last five years. Of the twelve newly admitted countries, Cyprus, Slovenia, the Czech Republic and Malta have the smallest gap relative to the average of the original members; in fact, the gap is even smaller than that of Portugal, which is more than 30% below the average of the old Member States.

Between the two reference periods all new Member States were able to narrow the gap, except for Malta, where the distance remained the same. Among the original EU Members, Italy was falling behind somewhat, whereas Luxembourg, Ireland and Greece improved their relative position considerably.

Graph II.2.1: Per capita GDP in the EU



Source: Eurostat, Commission services

These results suggest that countries with lower initial per capita GDP tend to grow faster, thereby catching up with the other EU countries. This inverse relationship between growth and the level of income is called "beta-convergence". If this factor is present, poorer countries are able to draw nearer to their richer peers.

Sala-i-Martin (1996) investigated beta-convergence across regions in the United States, Japan and five European nations. It was conjectured that the speed with which a region or country closes the relative income gap with respect to the others is dependent on the actual size of the gap. This speed of convergence was found to be surprisingly stable across regions and was estimated at around 2% per year. Thus, the

growth rate of a country where per capita GDP is some 10 percent below the average of the reference group of countries should be roughly 0.2 percentage points higher than the average annual growth of that reference group.

Table II.2.1: Estimation results for beta-convergence in EU-27

Estimated equation: $\Delta \ln(\text{GDP per capita}) = \alpha - \beta \cdot \ln(\text{GDP per capita}(-1))$		
Period	α	β
1999-2003	0.277	0.023
<i>t-value</i>	(6.43)	(5.24)
2004-2008	0.397	0.034
<i>t-value</i>	(9.07)	(7.77)

Note: Pooled Least Squares with period fixed effects
Source: Commission services

The relationship between growth and the level of per capita GDP was estimated for the 27 EU countries for the five years before and after enlargement (Table II.2.1). Results show that beta-convergence took place, supporting the notion that countries with a lower income level (the new Member States) were growing at a faster pace. Furthermore, while the speed of convergence in the pre-accession period was 2.3%, roughly matching the result of Sala-i-Martin (1996), it increased further to 3.4% following enlargement. The acceleration of the catching-up process in the post-accession period was also identified by Rapacki and Próchniak (2009).

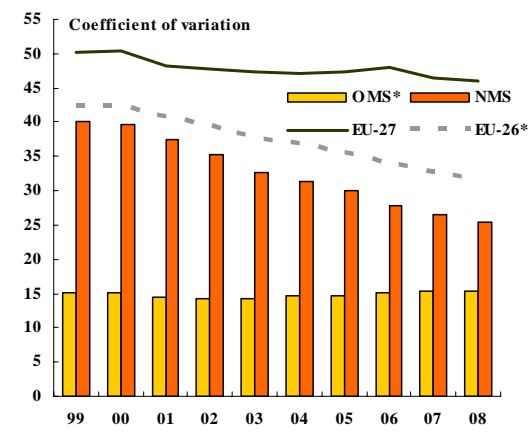
It is also of interest to know whether absolute inequalities among countries are being reduced over time. Although beta-convergence (which ensures that Member States with lower per capita GDP grow faster than higher-income countries) is necessary in order for absolute income differences to disappear, it may not be sufficient. Indeed, if the income difference is wide and the poorer country is growing only moderately faster than the richer one, the absolute income difference may actually increase. The notion that absolute per capita GDP disparities are being reduced over time is known as 'sigma-convergence'.

With regard to sigma-convergence in the enlarged EU (Graph II.2.2), it was found that income dispersion remained largely the same during the 10 years examined. However, if Luxembourg was excluded, the dispersion after

enlargement decreased. However, this increase in income equality was due to diminishing disparities among the new Member States, as there was no further convergence among the old EU Member States.

To sum up, the new Member States with low per capita GDP are not only catching up with their wealthier peers in relative terms, but they are doing so at a fast enough pace for absolute income inequalities to diminish over time.

Graph II.2.2: Sigma-convergence in the EU



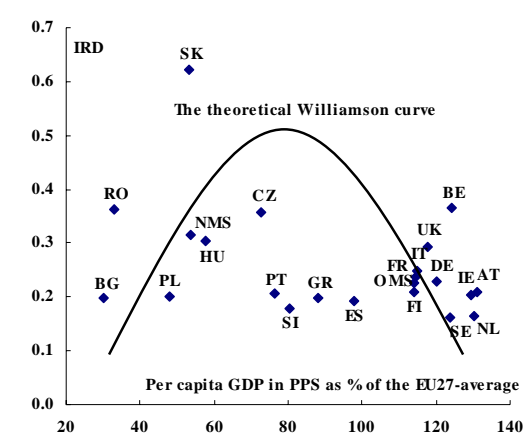
Note: * Excluding Luxembourg
Source: Eurostat, Commission services

2.2.2. Cross-country convergence and within-country divergence

According to the Williamson-curve hypothesis (Williamson, 1965), the relationship between a country's economic development and within-country regional disparities follows a reverse-inverted U-shaped curve (Graph II.2.3). The hypothesis is based on the argument that, in the early stages of development, capital and skilled labour tend to concentrate in a few regions which drive the country's economic growth. Subsequently, agglomeration diseconomies (such as higher factor costs), knowledge spillovers and fiscal transfers can cause a more balanced distribution of productive factors across regions.

Following Szörfi (2007), the weighted standard deviations of regional (NUTS level 2) GDP per capita levels divided by the countries' GDP per capita level are used here as an index to measure regional disparities within countries.

Graph II.2.3: Regional disparities and per capita GDP in 1995-2005



Note: $IRD = \frac{1}{N} \sum_{r=1}^N \left(\frac{GDP_{pc_r}}{GDP_{pc}} \right)^2$ where IRD denotes the regional disparities index, N is the number of regions in the country, GDPpc stands for the GDP per capita in the country while GDPpc_r indicates GDP per capita in the region r.
 OMS: EU-15 excluding DK, LU
 NMS: SK, RO, CZ, HU, BG, PL, SI
 Source: Eurostat, Commission services

According to this index, regional disparities grew in all new Member States for which data are available in the period 1995-2005 and they were higher on average than in the old Member States, where regional disparities remained broadly stable in most cases. Slovakia experienced the highest and also the fastest-growing regional divergence, while the Czech Republic and Romania also recorded relatively high and growing disparities. On the other hand, regional divergence in Slovenia and Poland⁽³⁾ remained below the average for the old Member States in the years 1995-2005.

Between 1995 and 2005 Belgium and the UK among the old Member States suffered from the highest regional disparities, whereas Sweden and the Netherlands enjoyed the lowest. Moreover, while the UK and Greece went through substantial regional divergence, Italy and Austria recorded some regional convergence. Spain, Ireland and Finland experienced an inverted U-shaped curve pattern of regional divergence.

Hence, economic catching-up in all new Member States seems still to be predominantly driven by a limited number of regional growth poles, while

the majority of the old Member States rely on a more regionally-balanced growth. Furthermore, a growing number of old Member States have managed to initiate increasing regional convergence in recent years.

2.3. THE QUALITY OF THE CATCHING-UP

A significant catching-up was observed in the new Member States and this section explores in more depth the extent to which the catching-up process in the enlarged EU has relied on sustainable dynamics. To that end, the trend in GDP growth is analysed from the demand side, in terms of its sectoral composition and of the production factors which were important. The pre- and post-enlargement periods are compared and the old Member States are used as a benchmark. Capital deepening and increasing productivity were important drivers of growth, as well as investment in the industrial sector. However, it also appears that part of the catching-up process relied on exuberant demand, financed by cheap credit, which outpaced the supply potential of the economy. This eventually led to a sharp reversal in the real convergence prospects in those Member States with the largest macroeconomic imbalances⁽⁴⁾.

2.3.1. Growth from the demand side

GDP growth in the enlarged EU was about 0.1 of a percentage point higher on average in the period 2004-2008 than in 1999-2003. While average growth stayed at 2.2% in the old Member States, it increased significantly in the new Member States – from 3.4% in 1999-2003 to 5.6% in 2004-2008 (Table). This increase was due to higher domestic demand, which was partially offset by the negative contribution of net exports to growth. In the old Member States, on the other hand, the growth composition remained broadly stable.

After enlargement, the higher growth in domestic demand in the new Member States was driven by private consumption and gross fixed capital

⁽³⁾ NUTS level 3 data indicate a substantially higher level of regional disparities for Poland.

⁽⁴⁾ For analysis of growth strategies pursued by the new Member States and their comparison with East Asia see also Fabrizio, S., D. Leigh and A. Mody (2009).

formation, with the growth of government consumption being somewhat lower. At the same time, the positive contribution of exports to growth was offset by an even bigger rise in imports. The emergence of macroeconomic imbalances as a consequence of the increased reliance on domestic demand put a brake on economic expansion. The deteriorating financing conditions, combined with a sentiment reversal, led to a severe deceleration of growth in 2008 in most new Member States with large imbalances.

Table II.2.2: GDP growth and its main components

Average annual percentage change in constant prices	NMS		OMS	
	99-03	04-08	99-03	04-08
GDP	3.4	5.6	2.2	2.2
Private consumption	4.0	5.5	2.5	1.7
Public consumption	3.1	2.3	2.2	1.8
Gross fixed capital formation	2.0	10.2	2.3	3.4
Exports	8.7	11.8	4.8	5.7
Imports	7.9	12.4	5.0	5.6
Contribution to GDP growth:				
- domestic demand	3.4	6.4	2.2	2.1
- net exports	0.0	-0.8	0.0	0.1

Source: Eurostat, Commission services

The old Member States also enjoyed an acceleration of gross fixed capital formation, whose positive impact on GDP growth was offset by a slowdown in private and government consumption. Following enlargement, growth in the old Member States was further supported by exports, which outpaced imports.

Among the new Member States, average GDP growth in the five years before enlargement was highest in the three Baltic States. After enlargement, Slovakia replaced Estonia among the three fastest growing economies. While the contribution of domestic demand to growth exceeded 6% in only three new Member States (Bulgaria, Latvia and Estonia) during the pre-accession period, four more countries (Lithuania, Romania, Slovakia and Poland) joined this group in the post-accession period. Apart from Slovakia, the group of the new Member States enjoying a positive growth contribution from net exports consisted of only Poland, Cyprus and Slovenia in the period before enlargement, with the Czech Republic and Hungary being included after enlargement.

Hence, while the three Baltic countries plus Romania and Bulgaria relied mostly on growth driven by domestic demand in the post-accession

period, some central European countries (Czech Republic, Hungary and Slovakia) managed to build on a more balanced composition of growth.

2.3.2. The sectoral composition of growth

In a properly functioning market economy, the most productive economic sectors will eventually expand and the less profitable ones will contract, in terms of both their output and the inputs used.

In the old Member States, growth was largely driven by the financial services sector. This sector has gained in importance, and its post-enlargement contribution to gross value added (GVA) growth increased from 0.8% to 0.9% (Table II.2.3). In a group of countries the improvement in performance was led by the industry sector (excluding construction). In Germany, for instance, the industrial value added increased by 1.4% annually prior to enlargement and by 4.1% after the new Member States joined in 2004.

Table II.2.3: Sectoral contributions to growth

	NMS		OMS	
	99-03	04-08	99-03	04-08
GVA (real annual percentage change)	3.4	5.5	2.2	2.4
Agriculture	0.1	0.0	0.0	0.0
Industry (excl. construction)	1.0	2.0	0.3	0.5
Construction	-0.1	0.5	0.1	0.1
Market services (excl. financial)	1.1	1.7	0.6	0.5
Financial services	0.7	1.0	0.8	0.9
Public services	0.5	0.3	0.4	0.3

Source: Eurostat, Commission services

In the new Member States the acceleration in these sectors was more dramatic. The industrial sector's contribution to growth, which amounted to only 1% before enlargement, rose to 2% after enlargement. Similarly, private sector services added only 1.8% to GVA growth in the pre-accession period, whereas since 2004 their contribution has been at an average of 2.8%.

The large increase in value added in the industrial and the market services sectors in the recently acceded Member States is a prominent sign of the continuing shift among sectors which is a characteristic of the catching-up process. Already before enlargement the industrial sector in the new Member States was beginning to gain in importance, as newer, more productive technologies were being transferred from the old

EU countries. At the same time, resources were also being relocated to the markedly underdeveloped services sector. As a result of the associated rapid expansion of credit to households, the construction sector made a bigger contribution to growth, although - given the deteriorating financing conditions - this is unlikely to be sustained in the coming years.

Through the sectoral links between some of the old and new Member States, the rapid growth recorded in the acceding countries had a spill-over effect, thereby increasing growth in the original Member States. At least two patterns can be identified (Table II.2.4).

Table II.2.4: Sectoral contribution to growth in selected regions

in %	Nordic States		Central European States	
	FI, SE	EE, LT, LV	AT, DE	CZ, HU, PL, SK
Total output				
99-03	2.92	5.91	1.48	3.05
04-08	3.81	8.90	2.13	5.35
Agriculture				
99-03	0.04	0.09	0.00	0.08
04-08	0.09	0.06	0.02	0.15
Industry (including construction)				
99-03	1.33	1.82	0.23	0.81
04-08	1.61	2.54	1.03	2.59
Market services (including financial intermediation)				
99-03	1.25	3.34	0.98	1.61
04-08	1.88	5.31	0.95	2.28
Public services				
99-03	0.30	0.55	0.25	0.49
04-08	0.24	0.83	0.11	0.21

Source: Eurostat, Commission services

In the Baltics, the rapidly developing housing sector and the dynamic growth in consumption served to invigorate market services and, in particular, financial intermediation. This affected the same sectors in the neighbouring old Member States (Finland, Sweden). Export growth provided much of the momentum in the catching-up process in Central European countries, and the accompanying boom in the industrial sector had a positive impact on their trading partners among the original Member States (Germany, Austria).

2.3.3. Growth seen from the production side

The previous sections have looked at demand patterns and also investigated the sectoral composition of output. This section now examines the supply side based on the

production function by analysing the evolution of factor inputs, i.e. labour and capital.

The production function approach makes use of a simplified production scheme whereby output is generated by using a given level of technology to combine with two inputs: labour and capital. In this approach, output is increased by improving the technology and/or increasing the amount of one or both inputs. This method can then be used to estimate the fraction of GDP growth that was due to the increase in the labour input or the capital input, or due to rising total factor productivity (TFP), which is used in the production function approach to describe technology in general.

The major differences between the old and the new Member States with respect to the factors of production are in the stock of productive capital and the level of total factor productivity. In the original Member States the estimated capital stock is on average larger than their GDP by a factor of three, whereas in the recently acceded countries this ratio is closer to two. Both the lower stock of productive capital and the lower TFP lead to higher rates of capital accumulation and productivity growth.

Faster growth of the capital stock and more rapid improvements in productivity support higher GDP growth in the economies that are catching up. In the past decade, both capital input and TFP contributed around 2% to growth in the recently acceded countries, whereas in the original Member States each of these factors accounted for only about 1% growth (Table II.2.5).

Table II.2.5: Production factors' contribution to growth

Average annual percentage change in constant prices	NMS*		OMS	
	99-03	04-08	99-03	04-08
GDP	3.4	5.6	2.2	2.3
Capital	2.3	2.3	1.0	1.0
Labour	-0.9	1.1	0.4	0.5
TFP	2.0	2.2	0.8	0.7

Note: * EU-10 countries
Source: Eurostat

At country level, in the new Member States of the Baltic area and in Bulgaria, where the inherited capital stock was the lowest, the contribution of capital to growth amounted to more than 3½% after EU accession. Of the old

Member States, on the other hand, only Luxembourg, Ireland and Spain were able to achieve rates of more than 2%.

On the other hand, the contribution of labour to growth varied considerably in the new Member States during the period under review. This was due to the transformation of the labour market in recently acceded countries. A part of the labour force which was undereducated or whose skills were insufficient to work with the newly acquired technologies was often driven out of the labour market and in many cases became inactive. Such developments reduced both the available labour force and the participation rate. The largest drop was recorded in Romania, where the participation rate fell by more than 6 percentage points between 1999 and 2003.

Labour market distress during the pre-accession years is also confirmed by the trend in the average unemployment rate in the recently acceded Member States which rose from the already high 10.9% in 1999 to 13.8% in 2002 and then eased somewhat to 12.9% by the time of enlargement. However, as the contribution of both labour and TFP to growth increased in the post-accession period compared to the pre-accession period, generally speaking there does not appear to have been a trade-off between productivity and employment in the new Member States.

The production function method may also be used to estimate potential growth, i.e. growth that would occur if all resources were used to their optimal capacity. Combining estimates of the potential contributions of all production factors to growth, it is possible to make a rough estimate of the difference in potential growth between the two groups of countries. If the joint contribution of capital and TFP to growth in the new Member States remained at least two percentage points higher than in the old Member States, and assuming that employment in the recently acceded countries could maintain its recent rate of growth without risking an acceleration of wage inflation, the average potential GDP growth in the new Member States could be roughly 2½ percentage points higher than in the original Member States.

2.3.4. Composition of investment

In a catching-up context, it is not only the level of investment that matters but also its composition. Following the EU enlargement of 2004, the GDP share of investment increased in both the old and the new Member States. The rise in investment levels was mainly due to an increase in housing construction, while investment in metals and machinery declined. Moreover, although the amount of other construction works increased in the old Member States, it declined in the new Member States. On the other hand, investment in transport equipment stagnated in the original Member States, but rose in the Member States that acceded more recently.

Table II.2.6: Investment by asset type

% of GDP	AVG	EU-27	OMS	NMS
Total	98-03	20.0	19.9	22.9
	04-08	20.6	20.4	23.4
Metal products and machinery	98-03	5.9	5.8	7.5
	04-06	5.2	5.1	6.5
Construction work:	98-03	5.0	5.1	2.8
housing	04-06	5.4	5.5	3.0
Construction work: other constructions	98-03	5.6	5.4	8.8
	04-06	5.8	5.6	8.5
Transport equipment	98-03	1.9	1.9	2.3
	04-06	2.0	1.9	2.6

Source: Eurostat, Commission services

Hence, although investment levels increased after the 2004 EU enlargement, the composition of investment in both the new and the old Member States has shifted more towards non-productive housing investment. At the same time, while public investment as a share of total investment remained unchanged in the old Member States, it increased in the new Member States. This rise was to a large extent influenced by the inflows of EU funds, notably cohesion funding and higher national co-financing needs.

2.4. ECONOMIC INTEGRATION AND MACROECONOMIC STABILITY: THE UNDERLYING CONDITIONS FOR GROWTH

Growth in the EU as a whole benefited greatly from economic integration and macroeconomic stability. First, this section documents the broad trends in trade and investment flows in the enlarged EU and how they impact on business

cycle synchronisation. It then goes on to consider institutional reforms and increased economic linkages among the new and the old Member States, and the extent to which these have translated into higher output growth. Lastly, the level of nominal convergence in the enlarged EU and the costs of stabilisation are analysed. The focus of this section is on the link with growth. A more detailed analysis of trade and investment flows, cyclical synchronisation and the various aspects of macroeconomic stability is presented later in the report.

2.4.1. Integration and business cycle synchronisation

Enlargement has had a positive impact on trade in the EU, as the average GDP share of exports and imports (openness) increased in both the old and the new Member States between 1999-2003 and 2004-2008 (Table). Moreover, this rise in trade was more pronounced for extra-EU trade than for intra-trade flows, with the share of intra-EU in total trade decreasing marginally in the old Member States, but increasing slightly in the new Member States. Hence, enlargement seems to have supported trade creation without leading to substantial trade diversion from extra- to intra-EU trade. As a result, it has provided increased growth opportunities for producers and a wider choice for costumers.

Table II.2.7: Trade patterns in the enlarged EU

	NMS		OMS	
	99-03	04-08	99-03	04-08
Openness	47	56	34	38
Share of intra-EU in total trade (%)	74	76	66	65

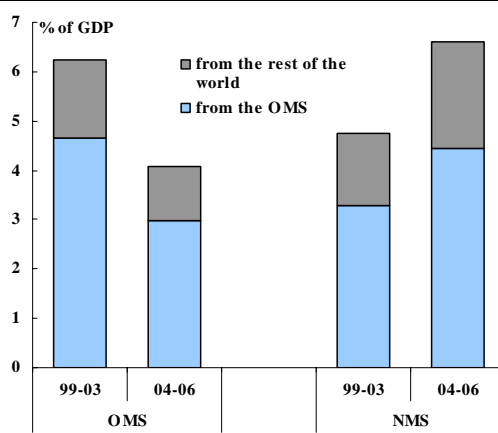
Note: Openness: average GDP share of exports and imports

Source: Commission services

Apart from facilitating trade flows, EU accession was also expected to stimulate FDI inflows through a more attractive business environment and increased investor confidence. Following enlargement, the GDP share of inward FDI increased in the new Member States and decreased in the old Member States, as foreign investors from both the old Member States and the rest of the world appear to have exploited the improved investment climate in the recently acceded Member States (Graph II.2.4). The increase in FDI inflows is likely to have contributed to higher investment, employment and productivity growth in the new Member

States, while enabling foreign investors to better allocate their productive resources and thus increase their efficiency and competitiveness.

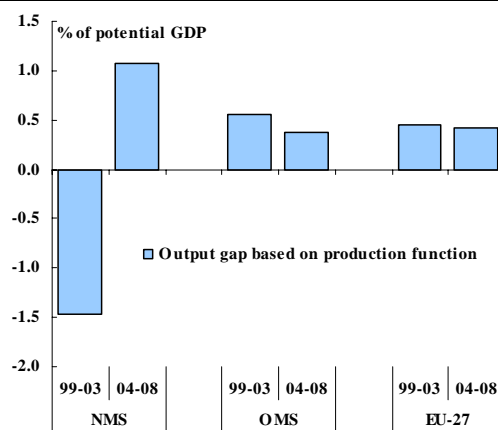
Graph II.2.4: Inward FDI in the new and old Member States



Source: Eurostat, Commission services

According to economic theory, increased trade and FDI flows can have ambiguous effects on business cycle synchronisation. While increased demand linkages and risk sharing should lead to a higher degree of synchronisation, the related potential increase in production specialisation is likely to have the opposite effect. A high degree of business cycle synchronisation facilitates the implementation of economic policy.

Graph II.2.5: Output gaps in the enlarged EU



Source: Commission services

The positive output gap in the enlarged EU remained broadly stable at around ½% of GDP following the 2004 enlargement (Graph II.2.5). This was due to a narrowing of the positive

output gap in the old Member States, which was almost fully offset by a dramatic reversal of the negative output gap in the new Member States. Besides highlighting the different cyclical developments between the old and new Member States, the substantial positive output gap in the new Member States following their EU accession shows that part of the acceleration of growth was cyclical and, thus, temporary.

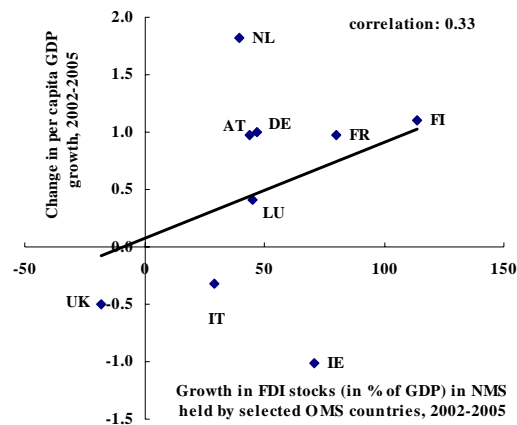
2.4.2. Institutions, integration and growth

A key driver of growth was institution building. Institutional reforms introduced by the adoption of the 'acquis communautaire' have improved the regulatory framework and increased the effectiveness of public administration in the new Member States. The resulting rise in trade and investment, including FDI inflows associated with technology transfers, together with growing EU transfers, strengthened the growth performance in the new Member States (Box II.2.2). It is estimated that accession gave the new Member States an extra growth boost of around 1¾ % on average each year during the period 2000-2008⁽⁵⁾. This compares favourably with the Commission services' ex ante estimate in 2001 of 1.3% additional growth in a central scenario, but falls short of the 2.1 % proposed in an optimistic scenario.

It was not only the new Member States that benefited from enlargement. A simple correlation analysis indicates that, on average, those old Member States with higher growth rates in their FDI and trade activity with the recently acceded Member States have enjoyed bigger increases in their real per capita GDP growth rates. Given the limited availability of bilateral FDI data, the years 2002 and 2005 - i.e. before and after the 2004 enlargement round - are considered (Graph). The change in real per capita GDP growth rates of nine old Member States between 2002 and 2005 is related to the growth in FDI stocks (ranked by GDP) held by these countries in the

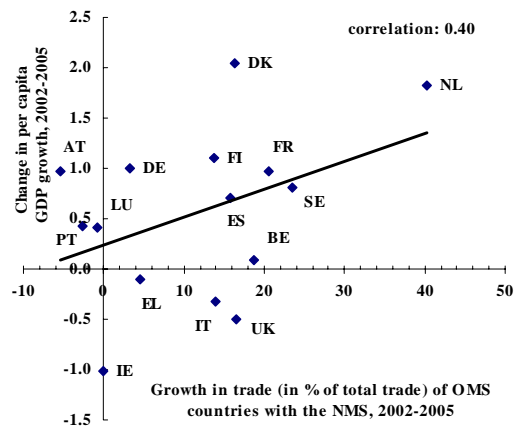
12 new Member States over the same time span⁽⁶⁾.

Graph II.2.6: FDI stocks in the new Member States and economic growth of selected old Member States



Source: Eurostat, Commission services

Graph II.2.7: Trade with the new Member States and economic growth of the old Member States



Source: Eurostat (COMEXT), Commission services

The correlation coefficient amounts to 0.33 and the gradient of the trend line is positive. This appears to confirm the hypothesis that between 2002 and 2005 those countries with higher growth in FDI stocks in the recently acceded Member States experienced bigger increases in

⁽⁵⁾ Breuss (2009) estimates that EU integration gains for Bulgaria and Romania could amount to additional ½ percentage point real GDP growth per annum up to 2020.

⁽⁶⁾ Due to data constraints, the figures for Ireland, Luxembourg and the Netherlands exclude FDI in Bulgaria and Romania. FDI stocks were given preference over FDI flows, given the stronger year-on-year volatility of FDI flows.

Box II.2.2: Did EU accession contribute to growth?

Based on an empirical analysis this box finds that the enlargement process had on average a positive effect on growth for the countries that acceded to the EU after 2004, on top of the effect played by other explanatory variables. Interestingly, this positive effect remains significant also after controlling for institutional factors that are possibly related to accession like freedom of trade, and quality of legal and regulatory system. This suggests that TFP growth improvements associated with accession-related factors, like FDI and technology transfer, could have played a relevant role.

While the empirical growth literature is extensive, only a few studies have used growth regressions to analyse the impact of EU accession on growth. Crespo-Cuaresma et al. (2002) make explicit reference to EU membership in explaining growth, analysing pre-2004 accessions and finding the length of EU membership to have a significantly positive effect on economic growth. Schadler et al. (2006) analyse advanced and emerging market countries and find that income levels, population growth, investment, openness and institutional quality determine growth. Falcetti et al. (2006) and Iradian (2007) focus on the growth experience of transition countries and find a significant impact of institutional factors and transition reforms, as well as a significant impact of recovery from transition-related output losses.

The panel dataset comprises annual observations of 62 advanced, emerging, and transition economies from 1960 to 2008. Besides the 27 EU Member States and the remaining 11 OECD countries, 24 additional middle-income countries are considered. Explanatory variables include standard 'textbook' growth determinants (Barro and Sala-i-Martin, 2004; Levine and Renelt, 1992 and Temple, 1999), namely per capita GDP, population growth, investment, openness, terms-of-trade growth⁽¹⁾. In addition, transition-related structural change and developments in world commodity prices, are captured by terms of trade changes (Iradian, 2007). Furthermore, various

indicators for institutional quality, the legal system, freedom of trade, and the regulatory environment are considered (Acemoglu et al., 2005).

The aim of the analysis is to assess, whether on top of the effect of explanatory variables, new Member States performed differently during and after accession. Dummy variables capture the idiosyncratic effects of time periods and of country groups. There is agreement that much of the enlargement-related growth effects took place already before the official accession date, (e.g., Schadler et al., 2006). Hence, the interaction of the post-2000 dummy with a new Member States dummy is used to assess whether enlargement affected the growth rate of new Member States.

Following standard practice in the estimation of growth regressions, annual observations are converted into averages over five-year, non-overlapping sub-periods, in order to avoid that short-term disturbances affect results⁽²⁾. Results with and without institutional variables are reported, respectively, in specification (1) and (2) in Table 1. The explanatory variables have the expected sign and most of them are statistically significant. The new Member States appear to perform significantly worse compared with the benchmark country group (old Member States) and period (1995-1999) during transition (1990-1994), but significantly better thereafter⁽³⁾. The new Member States experienced after 2000 a significant "growth premium" of 3.3% on top of the OMS beyond the standard growth factors. As for the absolute size of such growth premium, it amounts to about 2.1%, and it is obtained as the sum of the increase in the growth difference with the OMS compared with the baseline period (3.3%) and the change in EU-15 growth over the same time interval (-1.1%). If the quality of the legal system, freedom of trade, and the quality of regulation in product, labour, and financial

⁽¹⁾ Results including human capital formation variables are not shown. For New Member States, only few observations are available for this variable.

⁽²⁾ Due to missing data for several variables for the 2006-2008 period, the last sub-period includes the available years between 2000 and 2008.

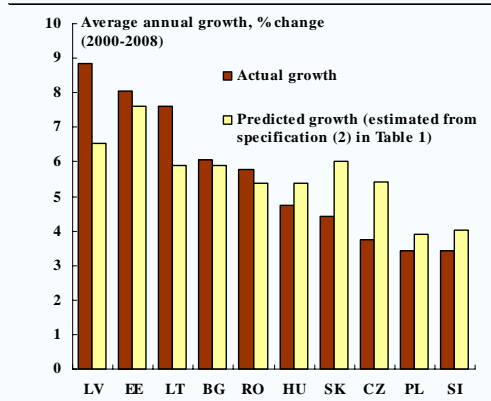
⁽³⁾ In all regressions, the omitted regional dummy is that for the OMS, while the omitted period dummy is the 1995-1999 period. Hence, the reported dummies represent the difference with respect to the OMS in the 1995-1999 period.

(Continued on the next page)

Box (continued)

markets are added among the explanatory variables (specification (2)), the impact of accession appears to be reduced, although remaining largely significant. The growth difference with respect to the old Member States in relation to the baseline period is 2.6% and the absolute increase in growth for new Member States after 2000 amounts to about 1.7%.

Graph 1: Actual and predicted growth of real per capita GDP



Source: World Development Indicators

Average results mask non-negligible differences across countries. Graph 1 plots the actual and the predicted growth rates for 2000 onwards. The difference between the two represents the average regression residuals. It is visible that there are non-negligible deviations of country performances from model predictions. Some of the results easily meet the intuition (e.g., Latvia and Lithuania exceeding model predictions, while Hungary and Czech Republic

falling short of them), others appear to challenge somehow expectations (e.g., Slovakia, after controlling for its comparatively high investment rate and high scores in terms of regulation quality, appears to perform worse than predicted).

Table 1: Growth regression for EU accession

	(1)	(2)
Log initial per capita GDP	-1.50*** (-5.30)	-2.16*** (-7.55)
Population growth	0.21 (1.07)	-0.42** (-2.20)
Gross capital formation	0.17*** (5.73)	0.17*** (6.95)
Openness	0.01*** (3.85)	0.01** (2.36)
Terms of trade growth	0.22*** (4.56)	0.15*** (3.47)
Quality of legal system		0.27** (2.52)
Freedom of trade		0.11 (0.84)
Quality of regulation		0.46** (2.59)
NMS-OMS growth difference 1995-1999	-1.72 (-1.81)	-1.47* (-1.95)
NMS-OMS growth difference: 1990-1994 versus 1995-1999	-3.29*** (-2.65)	-0.77 (-0.72)
NMS-OMS growth difference: 2000-2008 versus 1995-1999	3.31** (2.65)	2.64** (2.67)
OMS growth difference: 2000-2008 versus 1995-1999	-11.3 (-1.43)	-0.95 (-1.55)
Sample size	300	275
Adjusted R ²	0.46	0.49

Note: Estimation method: OLS. t statistics are reported in parentheses. The panel structure employs non-overlapping five-year periods, except for the last sub-period which includes the available years from 2000. *, **, *** denote statistical significance at 10, 5, and 1 per cent level. Specifications include world region dummies, time period dummies (1995-1999 period omitted), and the interaction between the two set of dummies. World regions are defined as follows: OMS (omitted), NMS, non-EU OECD, non-EU non-OECD. Dependent variable: Growth in real GDP per capita (PPS, %).
Source: World Development Indicators; Penn World Tables; Quality of legal system, Freedom of trade and Quality of regulation computed by Fraser Institute

their economic growth rates. Similarly, exports plus imports of all the old Member States were ranked by total trade and plotted against real per capita GDP growth (Graph); this gave a correlation coefficient of 0.40⁽⁷⁾. It may be surprising that Austria and Germany - two of the

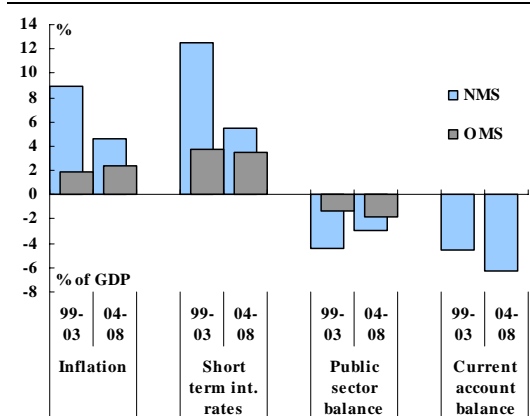
expected main beneficiaries of enlargement - score rather poorly in terms of their trade performance with the new Member States. However, the low growth rates of these countries are partly due to the fact that they had already increased their trade volume with the recently acceded Member States prior to enlargement. Nonetheless, the positive correlation seems to suggest that higher trade shares with the new Member States were linked to bigger increases in growth rates between 2002 and 2005.

⁽⁷⁾ Alternatively, the same exercise was conducted with bilateral trade scaled by GDP, yielding a correlation coefficient of 0.62. When increasing the time window for both trade specifications to 2000-2007, the corresponding correlation coefficients amount to 0.16 (bilateral trade scaled by total trade) and 0.26 (bilateral trade scaled by GDP).

2.4.3. Nominal convergence

Although the average annual HICP inflation and general government deficits (in GDP terms) in the new Member States decreased from 9% and 4.4% respectively in 1999-2003 to 4.7% and 2.9% in 2004-2008, they remained substantially above the HICP inflation and general government deficit levels of the old Member States which, over the same time span, rose from 1.9% and 1.3% to 2.4% and 1.8% respectively (Graph II.2.8).

Graph II.2.8: Nominal convergence in the enlarged EU



Source: Commission services

In the five years after EU accession, average annual HICP inflation was still at 5% in Latvia, Romania, Bulgaria, Hungary and Estonia. Over the same time span, the average general government deficit remained above 3% of GDP in Hungary, Poland and Malta.

While the average current account deficit remained in balance in the old Member States, it deteriorated in the new Member States from 4.5% of GDP in 1999-2003 to 6.2% of GDP in 2004-2008, with all recently acceded Member States experiencing current account deficits in both the pre- and post-accession periods. Following the 2004 enlargement, the average current account deficit exceeded 10% of GDP in the three Baltic countries, as well as in Bulgaria and Romania.

Of the old Member States, Greece, Portugal and Spain recorded the highest current account deficits in both the pre- and post-enlargement periods, while after enlargement Sweden

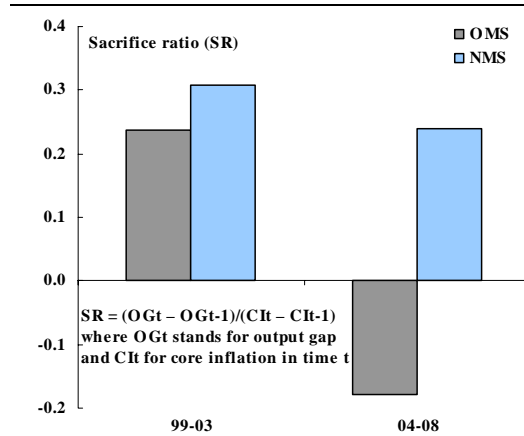
replaced Finland in the group of three countries with the highest current account surpluses, the other two being Luxembourg and the Netherlands.

Short-term nominal interest rates declined substantially in the new Member States from 12.5% in 1999-2003 to 5.5% in 2004-2008, but they also decreased slightly in the old Member States from 3.8% to 3.5%. Lower interest rates have stimulated investment and thus growth (Box II.2.3). Among the new Member States, the Czech Republic, Lithuania and Malta experienced the lowest interest rates and Romania, Hungary and Latvia the highest short-term interest rates in the post-accession period; this can largely be attributed to the difference in inflation levels in these countries. Among the old Member States, the non-euro area members faced higher interest rates than the euro area members both before and after enlargement; the exception was Sweden, which enjoyed the lowest short-term interest rates in the post-enlargement period thanks to more moderate price developments.

2.4.4. Stabilisation costs

Sacrifice ratios, which relate changes in output gaps to changes in core inflation, can give an idea of the relative costs of stabilisation.

Graph II.2.9: Sacrifice ratios in the old and new Member States



Source: Eurostat, Commission services

After enlargement, the sacrifice ratios fell in the new Member States, which could be attributed to the greater credibility of economic policy. The

Box II.2.3: The impact of a decrease in external spreads

This box presents the results of a simulation exercise assessing the potential impact of a decrease in external spreads on the economies of new Member States. The results confirm that some of the trends observed since enlargement may be attributable to the fall in the costs of financing in these countries.

Over the past years, a number of observers have noted that the market perception of risks in new EU Member States was fairly benign. Analysts pointed out that around EU accession, external risk premia fell significantly in these countries and that this fall could not be directly linked to economic fundamentals. An IMF study (Luengnaruemitchai and Schadler, 2007) estimated a steady 50-100 basis points advantage of new Member States relative to other emerging markets with comparable fundamentals between 2003 and 2007. At the same time, the new Member States also experienced relatively high growth and high external deficits as well as a real appreciation of their currencies around the date of accession. These trends have been reversed recently.

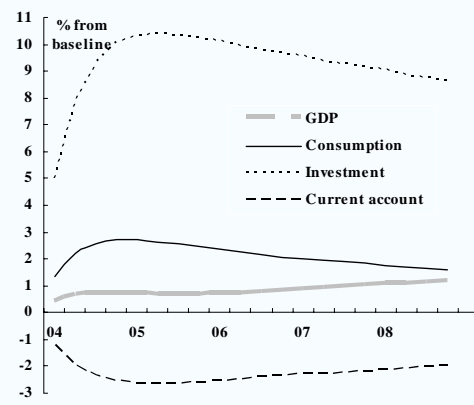
Using the Commission services' dynamic general equilibrium model QUEST III to analyse how much of these observed economic trends may reasonably be attributed to the fall in spreads, the impact of a permanent 100 basis points reduction in the external spreads is stimulated in a stylised small open economy.

The simulation results suggest that the fall in the spreads can explain an increase in GDP by around 1.4% after 5 years, or equivalently, a 0.25 percentage point additional growth on average per year following the shock (Graph 1). This growth is fuelled by the decreased costs of capital which allows a rise in investment by around

8%. In addition, the positive future income prospects along with the cheaper access to foreign funds contribute to a 2% increase in households' consumption. At the same time, the higher demand along with the enhanced consumption smoothing facilities also lead to persistent current account deficits as domestic inflation rises in the short run. The model generates a peak current account deficit of 2.5% as implied by the 100 basis points fall in the spread.

The current reversal in market sentiment has led to an increase in emerging market spreads in general and also to a rise in the external risk premium on new Member States' yields. This may be expected to imply negative effects symmetrical to the ones described above. In particular, the increase in spreads requires a correction of the external debt stock and therefore leads to a reversal in the external balances. These adjustments lead to a fall in investment and household consumption.

Graph 1: **Impact of a 100 basis points reduction in external spreads**



Source: Commission Services

sacrifice ratios in the old Member States actually became negative in the post-enlargement period, indicating that lower inflation was linked to stronger growth, which implied that in this period there was no cost of inflation reduction in terms of growth in the old Member States.

Hence, so far the EU Member States appear to have benefited from lower costs of stabilisation in the post-enlargement period than in the pre-enlargement period.

3. DOES THE EU MAKE A DIFFERENCE?

The remarkable growth performance of the new Member States during the last decade, and particularly since their accession to the EU, has captured the interest of both researchers and policy makers in order to be able to identify and understand the underlying drivers of economic growth as well as the contribution of trade linkages, FDI inflows and institutional factors to this performance. Economic growth in the new Member States picked up significantly at the end of the 1990s showing trends similar to the spectacular performance of the economies of East and Southeast Asia.

The newly industrialised economies of this region (Hong-Kong, Singapore, South Korea and Taiwan), as well as the middle income economies of ASEAN (Brunei, Indonesia, Malaysia, the Philippines and Thailand) provide an interesting benchmark for assessing the economic performance of the new Member States⁽⁸⁾. The selected fast-growing Asian economies and the new Member States share comparable per capita income levels and have both been involved in regional integration processes. Moreover, just as the start of economic transformation at the beginning of the 1990s represented a structural break for the new Member States, the 1997 crisis represented a similar turning point for the countries of East and Southeast Asia⁽⁹⁾.

The first part of this section provides an overview of the process of economic and financial integration in Asia and compares the catching-up experiences in Southeast Asia and the new Member States. The second part discusses similarities and differences in the respective growth models by analysing the differences in savings and investment patterns,

trade, exchange rate policies and quality of institutions.

3.1. ECONOMIC INTEGRATION IN ASIA

Although the first integration efforts in Asia date back to the 1960s, the progress of regional economic integration has been somewhat uneven (Box II.3.1). The 1997 crisis lent a new impetus to the process of economic integration and regional financial cooperation, but the concrete results have been limited. Economic integration has taken place mainly via the rapid expansion of intra-regional trade and the remarkable growth of supply-chain networks. However, from an institutional point of view, integration has been largely uncoordinated, mainly focusing on trade agreements, currency swap arrangements among central banks or initiatives to create regional bond markets, with often overlapping memberships and ultimately limited commitment.

The rationale for Asian countries to pursue regional integration has often been a dual strategy of strengthening the domestic economy while promoting export growth, including market diversification. In the wake of the 1997 Asian crisis, this strategy partially reflected the view that deeper trade integration with the other economies of the region would help to further insulate the Asian economies against shocks. The slowdown in multilateral trade liberalization has added to the perception that free trade arrangements would be an effective means of maintaining a strong export performance. Initially, the focus of Asian countries was on their major trading partners (United States, Japan and China), with other countries being regarded as gateways to potential markets to help export diversification and obtain preferential access to certain import goods. Therefore, several free trade arrangements have been negotiated with the Gulf Cooperation Council as well as with Latin American and African countries.

Regional trade integration in Asia can be partially explained by the importance of vertical specialization of global production (Athukorala, 2006). International product specialisation and the fragmentation of production and assembly

⁽⁸⁾ The other ASEAN member countries (Cambodia, Laos, Myanmar and Vietnam) were excluded from the sample either due to the limited availability of statistical data or their stage of economic development.

⁽⁹⁾ The newly industrialised Asian countries and the selected ASEAN countries constitute a heterogeneous group in terms of per capita income levels. The former can be considered as a good benchmark for Cyprus, Malta, Czech Republic and Slovenia while the ASEAN economies constitute the benchmark for the rest of the new Member States.

Box II.3.1: Regionalism in Asia

Integration in East and South-east Asia mainly evolves within three regional frameworks: ASEAN, ASEAN+3 (ASEAN plus Japan, China and Korea) and the East Asia Summit (EAS).

ASEAN is currently the most advanced framework for integration in Asia. Established in 1967, ASEAN now includes ten countries of East and Southeast Asia (Brunei, Burma/Myanmar, Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand and Vietnam). Over the past years, its integration process has gradually evolved. An ASEAN Free Trade Agreement (AFTA) is now in place, with reduced tariffs applying to some 95% of intra-ASEAN trade. In 2007, the ASEAN Summit agreed on the creation of an ASEAN single market by 2015, five years ahead of schedule, to better cope with the competitive pressure from China and India.

Since its creation in 1997, the main aim of the ASEAN+3 has been to provide a framework for closer cooperation in East Asia. Results have so far been limited to co-operation mainly in the financial area. Created in 2005, the East Asia Summit constitutes the most recent initiative to promote closer integration in East and Southeast Asia. EAS membership is wider than ASEAN+3 (it includes ASEAN+3 plus India, Australia and New Zealand) and it is a much looser forum for cooperation than ASEAN or ASEAN+3. It is not yet clear how EAS will evolve in the future.

The only concrete proposals for co-operation so far relate to the creation of a 16-nation free trade area and energy security.

These arrangements may provide some flexibility at the initial stages of integration, but in conjunction with political competition among many Asian countries, regional integration in this region resembles more to an Asian noodles bowl. By 2007, there were 36 free trade arrangements concluded, 41 under negotiation and 24 proposed. East Asia is at the forefront of free trade arrangements in Asia, as the initiatives at various stages constitute more than half of Asia's total free trade initiatives. (Kawai, 2007)

Moreover, there are several intra-regional groupings such as APEC (a Pacific-wide forum) or ASEM (a forum for dialogue between Asia and Europe) and economic fora, such as EMEAP (the Executives' Meeting of East-Asia Pacific Central banks), which also foster regional integration. From the perspective of exchange rate and monetary policy coordination, EMEAP, which includes the central banks of Australia, China, Philippines, Hong-Kong, Indonesia, Japan, South Korea, Malaysia, New Zealand, Singapore and Thailand, is particularly important since it aims at enhancing financial and monetary monitoring, developing financial markets within the region and encouraging co-operation on operational and institutional central banking issues.

within vertically integrated production processes across borders have contributed to major increases in trade integration, particularly in East Asia (Hummels, Ishii and Yi, 2001).

By 2000, for instance, the market share of East Asia in the world trade of intermediate goods was the largest among developing countries (roughly 39.5 % of the exports of these goods). However, the importance of exports of intermediate goods for the East Asian countries is uneven, as Indonesia's share, for instance, is relatively small. Using disaggregated data, Athukorala (2006) showed that, in 2003–2004, exports of parts and components accounted for 9.1 % of the exports from Indonesia, compared

with 20.5 % in Thailand, 36.3 % in Malaysia, 59.6 % in the Philippines and 45.2 % in Singapore.

While economic integration has been at the forefront of the integration efforts in Southeast Asia, regional financial integration has lagged behind considerably. Cross-border financial flows between Asian and non-Asian countries are more important than intra-regional financial flows within Asia (Cowen et al., 2006). In the absence of comprehensive bilateral data on cross-border financial flows in Asia, indirect measures (such as the correlation of consumption growth) show relatively low correlation levels between most Asian countries and other Asian

countries, indicating a low level of intra-regional financial integration (Mercereau, 2006). Therefore, Asian countries cannot reduce the volatility of consumption because risk sharing by holding assets from other Asian countries is still limited.

Intra-regional cross-border banking flows within Asia appear to play a limited role. Using a gravity model to study the gross cross-border banking flows of BIS reporting banks, Eichengreen and Park (2005) concluded that the different levels of financial market development (measured by bank credit as a share of GDP) compared with other regions largely explain the lower level of financial integration in Asia.

In spite of this rather low level of financial integration, the success of the European integration initiatives, the adverse effects of the Asian financial crisis and the unsuccessful attempts to reach an agreement on the formal coordination of exchange rate regimes have triggered a number of new initiatives aimed at strengthening the regional financial architecture in Asia. In May 2000, for instance, the ASEAN member countries agreed on a liquidity support facility as part of the Chiang Mai initiative, aimed at addressing short-term liquidity shortages in cases of financial crisis or contagion⁽¹⁰⁾.

Increasing trade ties between Asian economies have also brought about an upward trend of synchronisation of business cycles, particularly for the newly industrialised Asian economies. Analysing ten East Asian and two South Asian countries based on data for the period 1967-1997, Shin and Wang (2003) identified intra-industry trade as the main driving force behind the synchronisation of business cycles of East Asian economies. Kawai and Monitoshi (2005) found that real GDP growth, consumption and investment were highly correlated among the major East Asian economies during the period 1980-2002. Moreover, they concluded that for the low income ASEAN countries, the real

variables mentioned were less correlated with those of the other East Asian countries.

Using a dynamic factor model and a time horizon of almost 30 years (1975-2003), Moneta and Ruffer (2006) examined the synchronisation of growth dynamics in the East Asian region, concluding that growth in East Asia shows a significant degree of co-movement. They identified co-movements in exports as a significant explanatory factor for the co-movement in East Asian economies. Their analysis also suggests that the Asian countries are only slightly affected by developments in continental Europe (France, Germany and Italy), US and Canada. However, the Asian countries, do seem to influence European growth to some extent and, to a lesser degree, economic growth in the US and Canada.

3.2. CATCHING-UP IN THE NEW MEMBER STATES AND ASIA

Both the Southeast Asian countries and the new Member States have grown more rapidly and more steadily than any other regions in the world over the last decade. Due to the ever-closer trade and financial linkages with the old Member States in the run-up to accession, the new Member States have been able to achieve better economic performances than other emerging economies with similar income levels.

However, the new Member States and the selected Asian countries have gone through catching-up experiences, which differ significantly in terms of their timing and speed, reflecting differences at the political, economic and institutional level. While in the new Member States, the process of catching-up with the per capita income levels in the EU began in the early 1990s, against the backdrop of sustained structural adjustment and macroeconomic stabilisation efforts, catching-up in East and Southeast Asia began as long ago as the 1950s. At the outset of the catching-up process, these economies had a real per capita income of around or less than one-tenth that of the US.

In the first stage of the catching-up process, all the selected Asian countries embarked on a development path characterised by pronounced

⁽¹⁰⁾ The Chiang Mai initiative consists of two pillars: the already existing enlarged ASEAN swap arrangement and the bilateral swap arrangements among eight ASEAN countries, China, Japan and South Korea.

Box II.3.2: Lessons from the Asian crisis for the new Member States

Against the backdrop of increasingly integrated financial markets and enhanced capital mobility, the virulent 1997 Asian crisis provides a number of lessons for policymakers in the converging economies of Eastern Europe. It demonstrated that financial imbalances can cause significant distress for the real economy even in economies with apparently sound macroeconomic fundamentals (i.e. strong economic growth, robust saving and investment, buoyant export performance).

In the most affected Asian economies, high domestic interest rates and limited exchange rate flexibility contributed to the accumulation of large unhedged foreign exchange liabilities, which were used to support excessively high corporate debt-to equity ratios. (IMF 2007) The subsequent currency devaluations, triggered by the concerns of investors about unfavourable current account developments and over-appreciated real exchange rates, eroded the corporate balance sheets loaded with foreign exchange liabilities.

Furthermore, this crisis showed that short-term

capital inflows can have a destabilising impact on recipient economies, especially when they are used to finance widening current account deficits. In 1997, the crisis-stricken Asian economies had overvalued currencies which led to losses in competitiveness and large current account deficits. The reversal of investor sentiment induced a sudden stop of short-term capital inflows which eventually resulted in a lack of financing of current account deficits.

Moreover, the experience of the Asian economies underscores the importance of sound prudential and supervisory measures to maintain financial stability and to prevent banks from building-up significant foreign exchange exposures that can affect their viability. Apart from the sharp decrease in economic growth, the Asian crisis proved to be extremely costly in terms of the financial effort needed for the recapitalisation and restructuring of credit institutions in difficulty. According to IMF estimates, the cost of bank restructuring ranged from 35% and 32.5% of GDP in Thailand and Indonesia to 4.5% of GDP in the Philippines. (Williamson 2005)

inward-orientated economic policies aimed at increasing agricultural production, improving education and creating a domestic industrial structure shielded from foreign competition by protectionist measures. After this initial "take off" stage, the Asian countries gradually moved from import substitution towards more outward-oriented policies aimed at promoting exports as well as attracting FDI and advanced technology.

Although the countries of East and Southeast Asia have favoured a "common core" set of policies to accelerate the catching-up process, they display significant differences in terms of the extent of government intervention in the economy. This ranges from a highly interventionist approach like that of, South Korea, for instance, and the explicitly redistributive approach in Malaysia to the non-interventionist strategy adopted by Hong-Kong or Thailand. Irrespective of the chosen approach, these countries experienced high economic

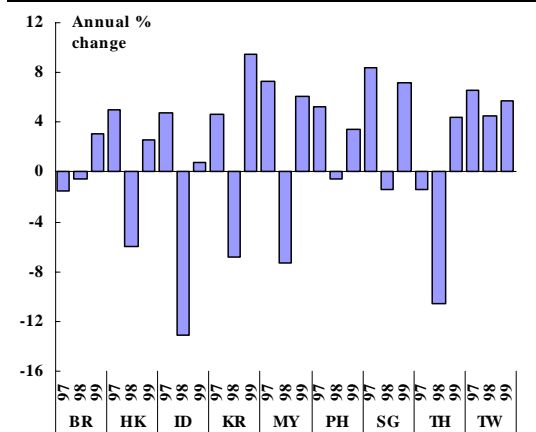
growth and were able to reduce the income gap vis-à-vis the developed economies. By the end of the 20th century, Hong-Kong and Singapore reached per capita real income levels between 70% and 98% of that of the US, South Korea and Taiwan achieved income levels of roughly 50% while Malaysia and Thailand reached a level of between a quarter and a third of that of the US.

The impressive economic expansion of the newly industrialised and middle income economies of East and Southeast Asia suffered a setback (except for Taiwan) in the aftermath of the painful 1997 Asian crisis (Box II.3.2), as real GDP growth dropped significantly in Hong-Kong, Indonesia, South Korea, Malaysia and Thailand and, to a lesser extent in Brunei, the Philippines and Singapore.

Nonetheless, the implementation of comprehensive structural reforms and stabilisation programmes allowed the Asian

economies to quickly recover and embark on a new growth path (Graph II.3.1).

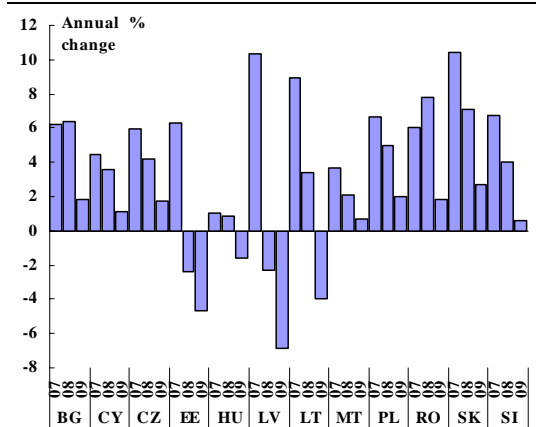
Graph II.3.1: Real GDP growth in selected Asian countries during and after the 1997 Asian crisis



Source: IMF

As with Southeast Asia during and after the 1997 crisis, the current economic downturn is affecting growth in the new Member States. Real GDP growth is expected to slow down significantly in all new Member States in 2009 (Graph II.3.2). In Estonia and Latvia, which were already cooling down before the financial turmoil, growth is projected to remain in negative territory in 2009.

Graph II.3.2: Real GDP growth in the new Member States, 2007-2009

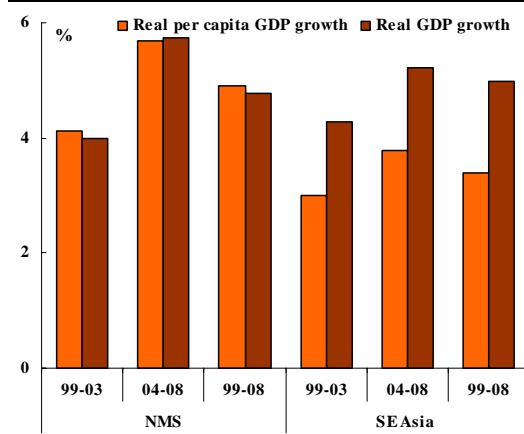


Source: Commission services (January 2009 interim forecasts)

Real per capita GDP and real GDP picked-up significantly in both the new Member States and East Asia in the period 1999-2008, with the new Member States experiencing a faster catching-up

dynamic than the Asian economies in the post-accession period (Graph II.3.3). Average real per capita GDP in both regions increased more rapidly in the period 2004-2008 compared to 1999-2003, due to a more favourable general economic climate.

Graph II.3.3: Catching-up in the new Member States and Southeast Asia, 1999-2008



Source: IMF

The catching-up process in the new Member States has also been influenced by demographic developments, considering the slower population growth in Central and Eastern Europe compared to Asia.

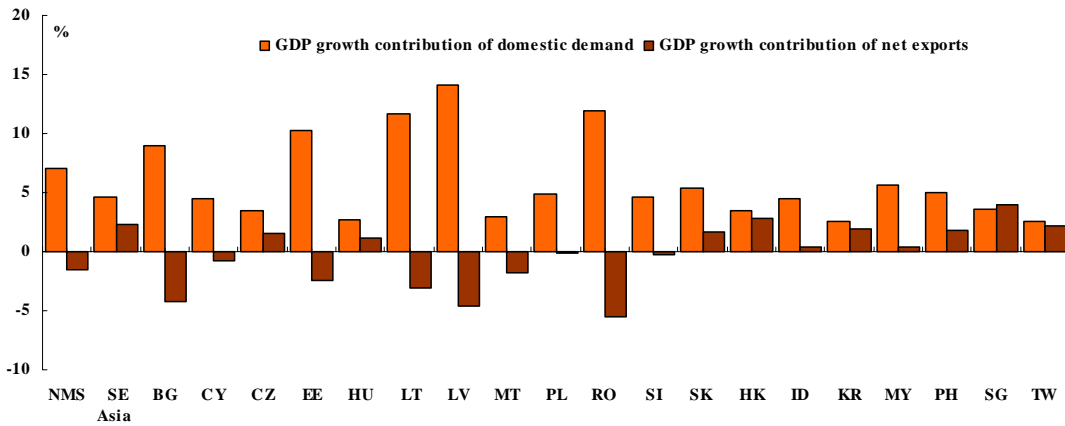
3.3. SIMILARITIES AND DIFFERENCES IN THE GROWTH MODEL

While both the Asian countries and the new Member States exhibit similarities in terms of the speed of the catching-up process during the period under review, a closer look at the factors that drive economic growth in these countries reveals significant differences.

3.3.1. The role of foreign and domestic demand

In the new Member States, economic growth has mainly been driven by domestic demand while net exports have contributed negatively to economic expansion except for the Czech

Graph II.3.4: Real GDP growth and its composition in the new Member States and Southeast Asia, 2003-2007



Note: No data for Brunei and Thailand; provisional data for 2007
Source: Asian Development Bank

Republic, Hungary and Slovakia during the period 2003-2007 (Graph II.3.4)⁽¹¹⁾.

Rapid growth in consumption and increasing private investment fuelled domestic demand in all of the new Member States in the period under review. One of the salient features of economic growth in these countries has been the impressive contribution of total factor productivity, with the countries that experience higher TFP growth expanding faster. Capital accumulation has also provided a substantial contribution to growth, albeit lower than in the Asian economies, while the contribution of labour has been relatively modest or even negative in some countries (IMF, 2008).

The analysis of the Asian growth model reveals some interesting developments. After the 1997 crisis, the East and Southeast Asian countries moved from a growth model with a more pronounced contribution of domestic demand, large current account deficits and overvalued currencies to an export-led growth model characterized by an increased contribution of net exports and investment directed towards the production of tradable goods, undervalued domestic currencies and widening current account surpluses. In the newly industrialized Asian countries (Hong-Kong, South Korea,

Singapore and Taiwan), the contribution of net exports to economic growth was higher than in the middle income economies during the period under review (Graph II.3.4). However, the increased dependence on net external demand and domestic investment channelled towards the build-up of export capacities may prove vulnerable in the long run. Adverse external demand shocks or a revival of protectionist sentiments among the main trading partners (i.e. US and EU) may significantly increase the volatility of economic growth in these countries.

3.3.2. The role of savings and investment

The high current account surpluses of the Asian economies highlight substantial changes in the saving and investment patterns, with the savings-investment balance moving from a deficit before the Asian crisis to a significant surplus in the past few years (Graph II.3.5). While there has been an active debate over whether the large surpluses in emerging Asia reflect an “investment drought” or a “saving glut,” statistical data suggest that this trend reflects a drop in investment after the intense overinvestment of the early 1990s, rather than a pick-up in savings. Investment declined sharply during the Asian crisis and remained at roughly 20% of GDP thereafter.

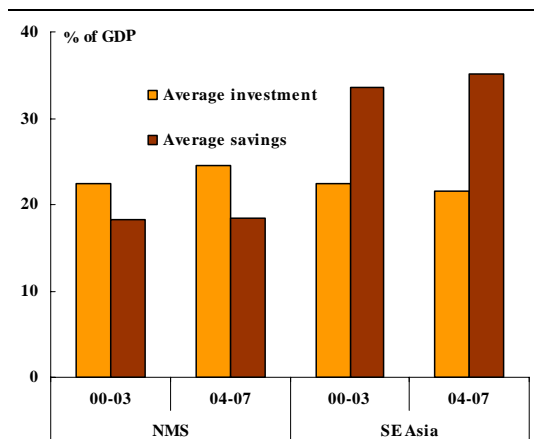
⁽¹¹⁾ The choice of this time horizon was determined by the limited availability of longer time series for the calculation of real GDP growth and its composition for the Asian economies.

FDI has played only a limited role in explaining the recent sluggish private investment trends in Asia. For most Asian countries, FDI accounts for a relatively small fraction of total investment.

Moreover, average annual FDI inflows expressed in USD remained virtually unchanged in the post-crisis years compared to the pre-crisis years for several middle income Asian economies, while for the newly industrialised countries (Hong-Kong, Singapore and South Korea) these inflows have continued to increase. Only Malaysia has recorded a small decline, but in relation to GDP this trend already began in the early 1990s.

Low investment in the post-crisis period may be explained by the increased investment risk, and also by the difference in performance between tradable and non-tradable sectors. According to the IMF (2006b), one of the sources of the post-crisis investment decline is the financially starved producers in the non-tradable sector.

Graph II.3.5: Savings and investment in the new Member States and Southeast Asia



Note: The different time horizon is determined by the lack of forecast data for the Asian countries for 2008.
Source: IMF

Companies in the tradable sector have better access to international capital markets while the smaller companies in the non-tradable sector rely predominantly on domestic bank credit. Since the 1997 crisis, the companies in the non-tradable sector have been the most affected and have benefited only marginally from subsequent exchange rate depreciations due to their orientation towards the domestic market.

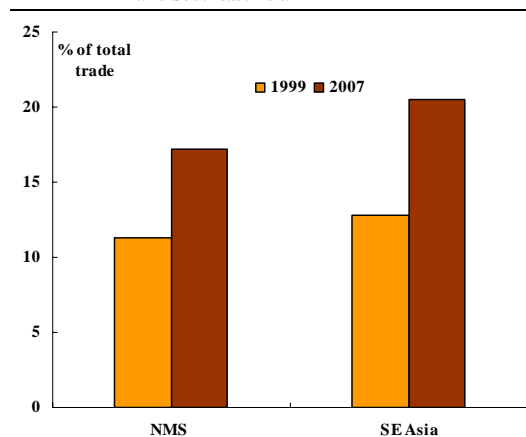
After a strong rebound from the sharp decline at the beginning of transition, savings rates have been relatively stable (roughly 18% of GDP) in the new Member States in recent years. At the

same time, investment increased slightly in 2004-2007 compared to 2000-2003 (Graph II.3.5). Overall, the negative savings-investment balance reveals a certain dependence of the new Member States on foreign savings to finance the buoyant investment activities (see Chapter IV).

3.3.3. The role of trade

The new Member States have benefited from their proximity to Western Europe and their orientation toward these markets, which has reduced their exposure to external shocks. The goal of EU accession became one of the key driving forces behind the structural adjustment and reform efforts. All the new Member States joined the World Trade Organization (WTO) soon after the beginning of the transition process. They have ranked highly in the EBRD index of liberalization of trade and foreign exchange systems, and in terms of the IMF Trade Restrictiveness Index most are on par or even less restrictive. Moreover, the new Member States have shifted the composition of exports toward areas where they expected to have comparative advantage, such as textiles and natural resources, and most are experiencing a rapid development of FDI-induced, intra-industry trade in areas such as automotive production and electronics.

Graph II.3.6: Intra-regional trade in the new Member States and Southeast Asia



Note: No data for Brunei.
Source: IMF

For the past four decades, trade has been the main engine of economic growth in most of East and Southeast Asia. While unilateral

liberalisation of trade helped to initiate the export-led development in the region, increasing economic integration has been a significant factor in supporting growth in this region. Vertical intra-industry trade has been fostered by the reduction in the cost of transportation and communication, by technological progress and by the strategic decisions of multinational companies to reallocate certain stages of production processes to lower-cost countries.

In the period 1999-2007, regional export shares have exhibited a rising trend in both the new Member States and Asian countries (Graph II.3.6). The relatively low importance of trade among the new Member States may be explained by their strong orientation towards the other EU countries, because their main trading partners are the old Member States. As trade is an important channel through which economic shocks are transmitted, export-oriented growth strategies tend to make countries more dependent on worldwide economic developments. The rapid expansion of intraregional trade in emerging Asia could therefore suggest that its dependence on the rest of the world is diminishing. However, that depends partly on how much of the rise in intra-regional trade is driven by increased domestic demand which is independent of external demand from outside the region, for which the evidence is not clear-cut.

3.3.4. The role of exchange rates

There is a broad consensus among economists that the soft US dollar pegs favoured by several Asian countries prior to 1997 contributed to the Asian crisis. However, there is far less agreement on the types of exchange rate regimes of many Asian countries since the crisis. Malaysia unambiguously pegged its currency to the US dollar, while other countries (e.g. South Korea and the Philippines) officially proclaim to have adopted floating exchange rates. Thailand opted for inflation targeting while Singapore adopted managed floating with no pre-determined path for the exchange rate. There is a burgeoning literature showing that there can be a significant divergence between *de facto* and *de jure* exchange rate regimes. Moreover, there is still considerable debate on how flexible Asian currencies have become in reality, or whether

they have moved from a soft US dollar peg towards a shadowing of the Chinese renminbi.

Despite vigorous intervention by the central banks, the currencies of the Asian countries have been under significant appreciation pressures in recent years. Since the end of 2004, a simple average of exchange rate indices for emerging Asia indicates that local currencies have appreciated by over 5%. Excluding Hong-Kong, which has a currency board arrangement, the appreciation over the past two years has been closer to 7%. There have been considerable differences between these countries, as some of them (notably the Philippines, South Korea, and Thailand) have experienced a more rapid appreciation.

In general Asian economic policy-makers still exhibit a "fear-of-floating" vis-à-vis the US dollar. This policy is partly driven by the desire to maintain relative price competitiveness against regional competitors such as China. With more flexibility of the renminbi other Asian countries could follow suit. Greater exchange rate flexibility would also allow increasing capital account convertibility and potentially a reduction in the current account surpluses and of the sizeable reserves of many Asian countries. Increasing exchange rate flexibility could thus help Asian economies to address the mounting costs of excess foreign exchange reserves such as quasi fiscal costs, potential capital losses or the restriction of monetary policy. As reserve increases have been only partially sterilized, credit growth has not been reigned in completely. This has also fed into the creation of asset bubbles such as property or stock exchanges and has contributed to global imbalances.

Similar to the Asian countries, the new Member States also display significant differences in their choice of exchange rate regimes, ranging from adoption of the euro (Slovenia, Cyprus, Malta, Slovakia) and currency boards arrangements/hard pegs (Baltic countries and Bulgaria) to inflation targeting frameworks (Czech Republic, Romania) or independent floating (Poland). Irrespective of the exchange rate regime, the new Member States have experienced a considerable appreciation of the real exchange rate, which has led to a loss of cost competitiveness in the period 1999-2008. In

contrast to the Asian countries, in the new Member States there is no divergence between the announced and the *de facto* exchange rate regimes.

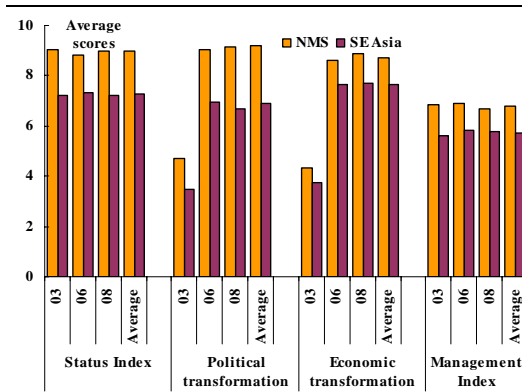
While the currency board arrangements/hard pegs were originally adopted with the aim of fostering macroeconomic stability, in recent years they have increasingly contributed to rapid credit expansion fuelled by capital inflows, increasing real estate prices and rising current account imbalances. The new Member States pursuing more flexible exchange rate regimes have been better equipped to avoid the unwarranted results of increasing capital inflows and to adjust to a real appreciation of the exchange rate via nominal appreciation.

3.3.5. The role of institutions

Country-specific factors such as the rule of law (enforcement of property rights, fight against corruption), good governance and the quality of institutions can influence growth and development through their impact on the allocation and productivity of resources. To foster economic performance, public policies have to pursue actions that enforce property rights, ensure good governance and enhance both the efficiency of the legal system and the quality of the institutions. Several studies provide some empirical evidence on the correlation between the rule of law and the growth of per capita income as well as on the growth-promoting impact of participatory and decentralised political systems (Rodrik, 2000).

The Bertelsmann Transformation Index is one of the indices that provide a systematic insight into key parameters of policy-making, by examining the development and transformation processes in the countries analysed. (Bertelsmann Foundation, 2006) The Bertelsmann Transformation Index consists of two sub-indices: the status index and the management index. While the status index shows the state of development towards democracy and market economy, the management index assesses the dynamic factors of good governance, especially reforms aimed at achieving a market-based democracy.

Graph II.3.7: Bertelsmann Transformation Index for the new Member States and Southeast Asia



Note: No data for MT, CY, BR and HK; the scores for the status and management index range from 0 (serious obstacles for a market-based democracy) to 10 (consolidated market-based democracy or in a course of consolidation).

Source: Bertelsmann Foundation

The results of the status index, which represent the mean value of the scores for political and economic transformation, reveal that the new Member States are considerably more advanced in their development towards a market-based democracy than the Asian countries. This outcome can be seen as a corollary of the efforts of the new Member States to fulfil the political, legal and economic criteria for EU accession and to achieve increased nominal and real convergence with the old Member States in the post-accession period (Graph II.3.7). The management index also confirms this pattern, as the new Member States have higher scores for stability and the pursuit of reforms than the Asian countries.

The Index of Economic Freedom published by the Heritage Foundation, which assesses the degree of economic freedom by looking at a complex of variables such as business freedom, trade freedom or property rights, indicates that all new Member States with the exception of Poland are mostly free or moderately free economies. In the period 1999-2008, Bulgaria, Romania, Slovakia and Slovenia have gradually moved from a mostly unfree or repressed economic environment to a moderately free economic environment. The East and Southeast Asian countries did not experience any changes in the period under review, as Indonesia and the Philippines are still the countries with the lowest degree of economic freedom.

The Corruption Perception Index published by Transparency International shows that since 1999, the new Member States have made steady progress in reducing corruption. With the exception of the Philippines and Malaysia, the countries of East and Southeast Asia display a similar trend. As a matter of fact, Singapore and Hong-Kong are currently in the group of the less corrupted countries of the world.

3.4. CONCLUSION

While both the new Member States and the East and Southeast Asian economies have been at the forefront of global growth, they display significant differences in terms of their growth models, drivers of growth and institutional factors. Due to the higher contribution of domestic demand to growth compared to the selected Asian economies, economic growth in the new Member States appears to be more sustainable in the long run as it might be less sensitive to the adverse shocks that may affect foreign demand. Concerning the contribution of institutional factors, the new Member States had to implement sound macroeconomic and structural policies in the run-up to EU accession. Furthermore, the existing EU policy framework contributes to a further strengthening of macroeconomic fundamentals and to reducing uncertainty. Institutionally, East and Southeast Asia is clearly lagging behind the new Member States. However, the lessons learned from the Asian crisis and the success of European integration has lent impetus to the efforts to strengthen this aspect and to move forward with regional integration (e.g. Chiang Mai initiative, ASEAN single market project).

Chapter III

Goods and services in an enlarged EU

SUMMARY OF MAIN FINDINGS

The change in economic regime in the Central and South-Eastern European economies since the beginning of the nineties eventually leading to accession in 2004 signified the extension of the principle of the free circulation of goods, services, capital and persons to a much larger area in Europe. This reliance on free markets together with the governance framework provided by the European Union was the key to a successful catching-up process which worked to the benefit of not only the new, but also the old Member States. In the following chapters these issues are examined in detail, starting with trade and the functioning of product markets.

Trade fosters growth, because it allows a country to specialise in the production of goods in which it has a comparative advantage. Trade also promotes FDI which leads to technology transfer and, more generally, openness is linked to good institutions and the implementation of best practices. Over the last decade, trade volumes expanded by 11.3 % in the new Member States - considerably faster than in the old Member States (5.3 %). In particular, trade with the rest of the world expanded rapidly, suggesting that the common external tariff which the new Member States had to apply did not result in trade diversion (the substitution of external trade by trade inside a customs union), but that instead trade creation was actually a consequence of the EU enlargement.

The level of trade integration is high in the European Union, which receives almost 80% of the total exports of the new Member States and 60 % of those of the old Member States. While these overall shares have been broadly stable over the past decade, shifts have occurred within these groupings. The new Member States became more important, both for each other (receiving 19.5 % of their exports in 2007 compared to 13.2 % in 1999) and for the old Member States (where exports to the new Member States increased from 4.7 % in 1999 to 7.5 % of total exports in 2007).

The new Member States succeeded in considerably increasing their world market share from 2 % of global imports in 1999 to about 4 % in 2007, thanks to a quality upgrading of their products and productivity gains which compensated for the sharp drop in cost

competitiveness caused by the rise in wages in these countries. Nevertheless, the new Member States remain very competitive, as wages per employee were only 26 % of the EU-15 average in 2007 (14 % in 1999). After a continuing depreciation up to 1999, the nominal exchange rate did not play a significant role in determining the level of cost competitiveness in the new Member States.

These developments are in contrast to the old Member States, which lost market share in the world (down from almost 39.5 % in 1999 to 34.3 % in 2007); this should not be attributed to the new Member States taking the place of the old, but instead reflects the general trend of the emerging economies gaining access to the world market. Furthermore, the old Member States post large trade surpluses with the new Member States.

Contrary to the expectations before enlargement, the new Member States did not increase specialisation in labour intensive products to take advantage of their low wages. On the contrary, large-scale foreign direct investment, mainly from the old Member States, has made it possible to increase the technological content and quality of the export basket of the new Member States.

A structural shift towards services and the knowledge intensive economy has taken place in the new Member States, even if on average they are still lagging behind the old Member States and several emerging markets outside the EU. While business constraints, such as limited access to finance and the lack of skilled labour, are reported by the enterprises in the new Member States more frequently than by those of the old Member States, in nine out of the twelve new Member States the trend is quite encouraging. Competition has increased in the new Member States, but on average their firms attach a great deal of importance to the aspects of the Internal Market (including the elimination of border controls, harmonisation of standards and – in many Member States - a single currency). Managers in the new Member States are aware that the response to the growing competitive challenge, which they could not but notice, is quality upgrade (71% are of this opinion in the new Member States, compared to 63 % in the old Member States).

Regarding the governance of competition policies, each new Member State has set up a national competition authority responsible for enforcing national law, as well as EU competition rules. Despite significant efforts and general progress, the enforcement of competition law remains a challenge in some of the new Member States. A few Member States are still in the process of adapting their national legal framework to enhance effective enforcement.

While the current level as a percentage of GDP remains higher than the EU-25 average, the new Member States have successfully re-directed their State aid towards horizontal objectives. This process has been reinforced by regional and national development programmes that linked EU funding with Lisbon objectives. A rapid convergence in State aid policies between new and old Member States can be observed. This illustrates the efficiency of the State aid monitoring authorities in the new Member States.

As regards competition in specific sectors, major differences can be observed as a consequence of the regulatory frameworks in place, but data availability is also an issue. A general finding, however, is that through its directives the EU seems to have significantly improved both the regulatory framework and effective competition. This can be observed, *inter alia*, in the telecommunication and postal services sectors.

1. TRADE AND CATCHING-UP

During the last decade increased globalisation has pushed world trade growth far higher than the growth in world GDP. Trade has been boosted by the "slicing up" of the production chain, spreading production phases over a large number of emerging partner countries (Table III.1.1). EU enlargement is a special case of globalisation. Enlargement brought legal certainty and institutional stability and abolished intra-EU trade barriers. As a result, large flows of FDI, mainly from the old Member States, have increased the technological content and product quality of the new Member States' export basket to an impressive degree. This has allowed new Member States to almost double their global export market share between 1999 and 2007, notwithstanding a seemingly large loss in cost competitiveness. At the same time, old Member States lost market share, against the background of a far lesser deterioration in cost competitiveness.

In recent years, new Member States have adapted the composition of their export basket, in terms of factor and technology intensity, to bring it closer to the composition of exports of the old Member States and the world. Research has shown that similarity in export composition between the new and old Member States is positively and significantly associated with the convergence process of new Member States in terms of income. In other words, those new Member States whose export composition is closer to the structure of the old Member States enjoy a faster catching-up process.

An enlargement that takes place during a period of increased globalisation is clearly different from previous enlargements. This can be seen in the rapid increase, albeit starting from a low level, in the market share of the new Member States after 2004.

The remainder of this section is organised as follows. The first part reviews the literature on the relationship between trade and growth. The second part focuses on developments in price and cost competitiveness in the old and new Member States. The third part deals with the developments in market share and the geographical breakdown of trade flows. In conclusion, the last part analyses measures of the

quality of exports, focusing on the breakdown of the export basket by factor and technology intensity.

1.1. TRADE AND GROWTH

1.1.1. General trends

In general, trade by both the new and old Member States grew faster after the 2004 enlargement (by 12.8% and 6% respectively) compared to the preceding five-year period. In most of the regions in the world, trade grew faster from 2004 onwards, compared to the preceding five-year period, with the exception of China.

Table III.1.1: Average growth rates of trade volumes per region

Annual percentage change	99-03	04-07
OMS	4.4	6.0
NMS	9.4	12.8
USA	2.7	6.1
Japan	4.5	7.2
Other industrialised countries	2.9	6.1
China	22.8	17.6
Asia excl. Japan and China	7.5	9.0
MENA	9.3	10.1
Latin America	5.4	8.0
Other emerging countries	2.3	9.1
World trade	5.5	8.7
World GDP	3.4	4.9

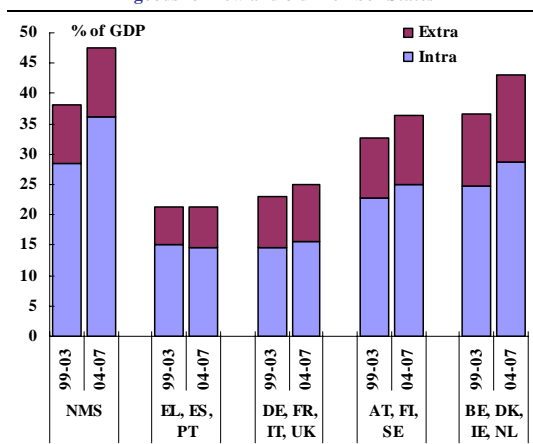
Source: IMF, Commission services

Interestingly, extra-EU trade grew faster than intra-EU trade after the 2004 enlargement (by 10.4% compared to 8.7% on average in 2004-2007). This suggests that the creation of trade (additional gains due to reduction of trade barriers between the Member States) was stronger than the trade diversion effect (losses due to shifts of trade flows from third countries towards the Member States).

In the last decade, the new Member States increased their trade openness, measured as a ratio of imports and exports to GDP to a greater extent than the old Member States. It should be kept in mind, however, that the 1990s was the crucial and most intense period of economic transformation in Eastern Europe, when the Europe Agreements constituted the framework for economic co-operation and trade liberalisation between the old and the new

Member States. Indeed, it was during this period that the strongest shift of trade flows from the new Member States towards the old Member States took place. The ratios of both intra- and extra-EU trade to GDP increased continuously with the stronger growth recorded after the 2004 enlargement. The increase in intra-EU trade was partly due to the acceleration of trade between the new Member States. Trade openness for the old Member States was more stable, and this applied to both larger and smaller Member States (Graph III.1.1).

Graph III.1.1: The importance of intra and extra-EU trade in goods for new and old Member States



Source: Commission services (AMECO)

1.1.2. Does trade stimulate growth and, if so, how?

Trade between old and new EU Member States can be explained to some extent by traditional trade theories, as a significant part of new Member States' trade is still based on relatively abundant labour and land, while trade by the old Member States with new Member States and with the rest of the world is concentrated in capital-intensive sectors. However, the increasing share of intra-industry trade streaming from the new Member States and the gradual move towards specialisation in more capital-intensive and high value-added products in some of the new Member States can only be explained by reference to the new trade theories. Importantly, with respect to the catching-up process, De Benedictis and Tajoli (2005) argue that similarity in export composition between the new and old Member States is positively and significantly associated with the convergence

process of new Member States in terms of income. In other words, those new Member States whose export composition is closer to the structure of the old Member States enjoy a faster catching-up process. Moreover, specialisation in intra-industry trade stimulates the development of higher value-added activities and, thus, the catching up process as a whole (Palazuelos-Martinez, 2007). The product structure of EU trade is analysed in detail in the last part of this section.

Although the most intensive period of trade liberalisation between old and new Member States took place in the 1990s, when the shift of trade flows from the new to the old Member States was particularly intense, the 2004 enlargement of the EU lent an additional impetus to the process, as the new Member States became even more integrated into the internal market and incorporated the rules of the common trade policy. However, this one-off effect of trade liberalisation, known as 'static effects' as defined by Viner, is expected to be smaller than the dynamic effects which occur over the longer term and which are associated with the positive impact that trade has on economic growth. Van den Berg (2006), who presents results of over 130 regression models linking the openness ratio with economic growth, finds support for this hypothesis. He points out that, in general, open economies grow 2-3% faster than closed economies. ⁽¹²⁾

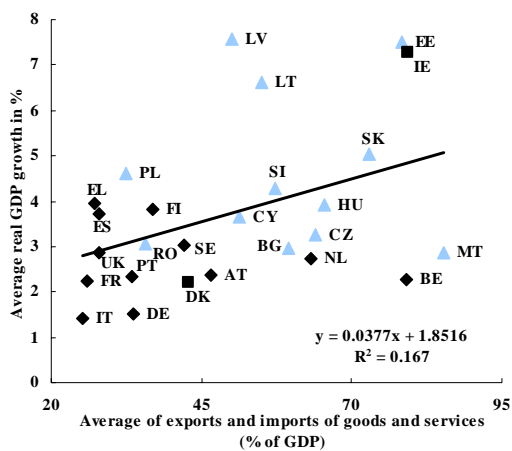
A simple comparison of real GDP growth and openness ratios for EU Member States (Graph III.1.2) shows this positive relationship, even though the magnitude of the relationship differs from country to country.

Although consensus reigns on the positive impact that trade has on economic growth, despite methodological problems (causality), economists are divided over the potential channels through which trade could affect growth. According to the literature on the subject, trade enables better allocation of resources through increased international

⁽¹²⁾ Some of the studies use index of openness to trade, others use proxies that represent the restrictiveness of trade policies.

competition, which results in lower prices and better quality. Trade also supports dissemination of know-how and technology, and creates a better environment for investment. Wacziarg and Horn Welch (2008), for instance, find that investment constitutes an important channel between trade liberalisation and growth, accounting for about 21% of the effect.

Graph III.1.2: Member States' openness ratios and real GDP growth, 1996-2007



Source: Commission services (AMECO)

A further important aspect of the trade-growth relationship is advanced by Winters (2004), who argues that other macroeconomic policies (see below) and institutions in general are important in order to fully understand the relationship between trade and growth and the catching-up process. He underlines that it is difficult to isolate the pure impact of trade on growth, but results of a number of policies - such as investment policy, the approach towards inflation, education and institutions - are also positively influenced by openness to trade. In the case of the 2004 enlargement of the EU, trade liberalization was implemented by new Member States not as an isolated policy but as part of a package including macroeconomic and fiscal policies. Therefore, in the broader context, openness is a positive force for growth (Baldwin, 2002).

1.2. COMPETITIVENESS

Competitiveness is the ability of a nation to generate relatively high income and employment,

while being exposed to external competition. It has two main dimensions: price and cost competitiveness, on the one hand, and non-price competitiveness, on the other.

To assess developments in price and cost competitiveness, real effective exchange rates are widely used. The focus of the argument set out below will be on developments in the real effective exchange rates, using as a deflator the overall unit labour cost⁽¹³⁾, as this allows the issue to be broken down into the developments in exchange rates, productivity and labour costs (Graph III.1.3).

The graphs show a fairly steady appreciation of the real effective exchange rate of the new Member States, relative to 36 industrial countries⁽¹⁴⁾. Developments in nominal exchange rates contributed only marginally to this appreciation between 2000 and 2007. While the real effective exchange rate rose by 28%, the nominal appreciation was only 8%. This is partly the result of exchange rate policies that are aimed at stability vis-à-vis the euro. Before 2000, the nominal effective exchange rate and the real effective exchange rate actually moved in opposite directions. The graphs also show the large rise in relative unit labour costs that boosted the level of the real effective exchange rate of the new Member States. An impressive rise of 19% in relative productivity between 2000 and 2007 is dwarfed by a 55% increase in relative labour costs.

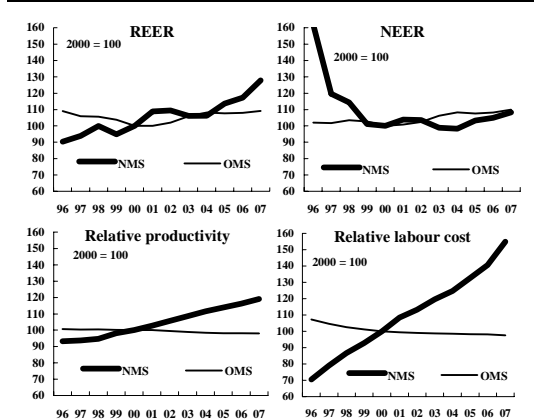
By contrast, the relative unit labour costs of the old Member States were fairly stable between 2000 and 2007, with a decline between 2% and 3% for both relative productivity and relative labour costs. As a result, the evolution of the real effective exchange rate (+9%) of the old Member

⁽¹³⁾ Depending on the deflator used, developments in the real effective exchange rate can be quite dissimilar. A difference between the evolution of, on the one hand, the real effective exchange rate based on export prices and, on the other, the real effective exchange rate based on unit labour costs or GDP deflator indicates differences between relative prices of tradables and non-tradables.

⁽¹⁴⁾ All variables in this section are expressed relative to 36 countries (EU plus Australia, Canada, Japan, Mexico, New Zealand, Norway, Switzerland, Turkey, US). The average indexes for the OMS and the NMS are calculated with Member States' GDP in EUR as weights.

States largely reflects the development in the nominal effective exchange rate (+10%).

Graph III.1.3: Real effective exchange rates and their components



Source: Commission services

Two caveats apply to the above analysis. First, the focus on developments between 2000 and 2007 should not divert attention from the enduring attractiveness of the new Member States in terms of absolute labour costs. In 2007, the average nominal compensation per employee in the new Member States was 26% of the EU-15 level (14% in 1997). The overall range was from 9% in Bulgaria to 57% in Cyprus, which leads to the second caveat: there are big differences within the two groups. These differences can be observed in price competitiveness as well as in its components, as shown in the following paragraphs.

Notwithstanding the 28% appreciation of the average real effective exchange rate of the new Member States between 2000 and 2007, two new Member States managed to record a much smaller loss in competitiveness - even smaller than the EU-15 average. The new Member States in question are Slovenia, due to exchange rate developments, and Poland, due to a favourable development in relative labour costs. The real effective exchange rate for Romania, on the other hand, appreciated by 63% following an increase in relative labour costs of more than threefold between 2000 and 2007.

In contrast to the EU-15 aggregate, two EU-15 Member States improved their competitiveness between 2000 and 2007: they were Sweden,

mainly due to exchange rate developments, and Germany, which experienced the most favourable development in relative labour costs of all EU Member States. Without Germany, the cost competitiveness of the old Member States would have deteriorated by 12% instead of 9%.

As section 1.3 will show, the new Member States significantly increased market shares between 2001 and 2007, notwithstanding a seemingly large loss in cost competitiveness. The old Member States, on the other hand, lost market share, against the background of a much smaller deterioration in cost competitiveness. The counterintuitive correlation that was observed between market share developments and price and cost competitiveness points to other factors playing a key role: these factors can be grouped under the heading of 'non-price competitiveness'.

The non-price competitiveness of an economy is a function of the quality of its products. The quality of a product is the result of its additional tangible characteristics (such as size or composition) or intangible characteristics (like design or reliability) that increase the willingness of buyers to pay a higher price for the product. This includes the contribution of production technology. As Dulleck et al. (2005) have shown, several new Member States were successful in achieving a substantial quality upgrading of their export structure. More on the product composition of EU trade can be found in section 1.4.

1.3. GEOGRAPHICAL COMPOSITION

1.3.1. Total export market shares

While the EU enjoys a dominant role as an exporter on world markets, the pattern of EU export market shares reveals some interesting characteristics when one tries to make a separate analysis of the new and old Member States in 1999-2007 (Table III.1.2).

The new Member States as a group increased their market shares in all country groups to which they exported in 2007 compared to 1999, although the shares are still relatively small compared to those of the old Member States.

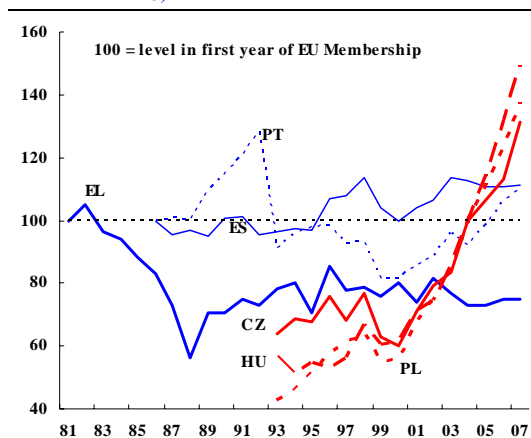
Table III.1.2: Export market shares of new and old Member States

%	World			Old Member States			New Member States			Rest of the World		
	1999	2004	2007	1999	2004	2007	1999	2004	2007	1999	2004	2007
BG	0.07	0.10	0.13	0.10	0.16	0.20	0.14	0.24	0.35	0.04	0.06	0.07
CZ	0.47	0.76	0.88	0.87	1.45	1.70	3.18	3.76	4.22	0.10	0.16	0.21
EE	0.04	0.06	0.08	0.08	0.11	0.12	0.21	0.32	0.36	0.01	0.02	0.04
CY	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.00	0.01	0.00
LV	0.03	0.04	0.06	0.05	0.06	0.07	0.17	0.26	0.47	0.01	0.02	0.03
LT	0.05	0.10	0.12	0.07	0.13	0.14	0.38	0.60	0.76	0.02	0.06	0.07
HU	0.44	0.61	0.68	0.90	1.20	1.23	1.36	2.04	3.03	0.11	0.17	0.22
MT	0.03	0.03	0.02	0.05	0.04	0.03	0.01	0.02	0.01	0.03	0.02	0.02
PL	0.48	0.82	1.01	0.91	1.54	1.90	2.02	2.89	3.67	0.15	0.27	0.34
RO	0.15	0.26	0.29	0.26	0.47	0.50	0.43	0.65	0.94	0.07	0.11	0.13
SI	0.15	0.18	0.21	0.27	0.29	0.35	0.43	0.50	0.76	0.07	0.10	0.09
SK	0.18	0.30	0.42	0.29	0.50	0.73	2.02	2.22	2.71	0.03	0.07	0.09
NMS	2.10	3.28	3.90	3.83	5.97	6.98	10.35	13.50	17.29	0.64	1.05	1.30
OMS	39.49	37.84	34.33	66.67	64.87	61.10	68.95	59.77	58.30	21.08	20.43	18.24
EU-27	41.59	41.12	38.24	70.50	70.83	68.07	79.30	73.27	75.60	21.72	21.48	19.53
US	12.35	9.03	8.51	7.10	5.07	4.99	2.16	1.43	1.51	16.42	12.08	11.17
Japan	7.18	5.95	5.01	3.49	2.54	2.02	1.24	1.45	1.44	9.98	8.45	7.09
China	3.51	6.59	8.94	1.41	3.00	4.63	1.30	2.65	3.85	5.05	9.17	11.93
Brazil	0.88	1.10	1.30	0.56	0.65	0.82	0.30	0.38	0.29	1.13	1.44	1.67
Mexico	2.51	2.13	1.91	0.23	0.18	0.30	0.10	0.03	0.07	4.17	3.53	3.01
Oth.L.Am.	2.19	2.18	2.79	0.92	0.84	1.19	0.28	0.32	0.41	3.15	3.17	3.94

Source: Eurostat (COMEXT)

This confirms that, generally, the new Member States were able to improve their international competitiveness thanks to their transition dynamic during the last decade.

Graph III.1.4: Export market share after EU accession (extra-EU)



Source: IMF

Interestingly, the new Member States increased their export market shares in the EU-15 market more strongly before accession while the dynamic was stronger in the intra EU-12 market in the period after the 2004 enlargement, which points to a pattern of regional integration through trade in Central Europe. Moreover, most of the

new Member States almost doubled their world market shares between 1999 and 2007. By contrast, Malta lost market share over the period under review⁽¹⁵⁾. In general, the rapid increase in the market shares of the new Member States after 2004, although starting from a low level, was strongly supported by the globalisation process, which could partly explain the difference in market share gains compared to previous enlargements (Graph III.1.4).

The trend in the export market shares of the old Member States reveals a mixed picture. While the old Member States increased their export share in the new Member States, their share in the intra EU-15 market, as well as in the world market as a whole, went down. This development can be explained mainly by the dynamic export growth of emerging economies, and of China in particular. In the EU-15 market between 1999 and 2007, the gain of the new Member States (+3.1%) does not make up for the loss of exports from the old Member States (-5.6%). Moreover, the old Member States differ in respect to the trend in export market shares. Of the largest Member States, the Netherlands managed to increase its export share in the

⁽¹⁵⁾ However, it should be taken into account that manufacturing is not the most important sector in Malta.

Table III.1.3: Geographical destination of exports of new Member States

% of total	1999	2000	2001	2002	2003	2004	2005	2006	2007
EU-27	81.7	80.6	81.5	80.8	81.1	80.6	79.3	78.9	79.1
OMS	68.6	67.3	67.7	67.3	67.1	65.4	62.5	60.7	59.7
<i>Germany</i>	33.1	31.2	30.4	29.2	29.4	28.0	25.9	25.0	24.3
NMS	13.2	13.3	13.8	13.6	14.1	15.3	16.9	18.3	19.5
Rest of the world	18.3	19.4	18.5	19.2	18.9	19.4	20.7	21.1	20.9
CIS	4.1	4.1	4.4	4.3	4.2	4.8	5.6	6.5	7.2
<i>Russia</i>	1.9	1.9	2.2	2.2	2.0	2.5	3.0	3.4	3.8
<i>China</i>	0.3	0.2	0.3	0.5	0.6	0.6	0.5	0.7	0.7
<i>Japan</i>	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3
<i>USA</i>	3.6	3.9	3.4	3.2	3.2	3.1	2.9	2.6	2.1
<i>L. America</i>	0.7	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5

Source: Eurostat (COMEXT)

world, Germany maintained a relatively stable position, but the United Kingdom, France and Italy lost out significantly. This divergence could be explained by the stronger ties of some countries to the dynamic emerging markets, as well as by more intensive regionalisation of production, e.g. by off-shoring (Danninger and Joutz, 2007).

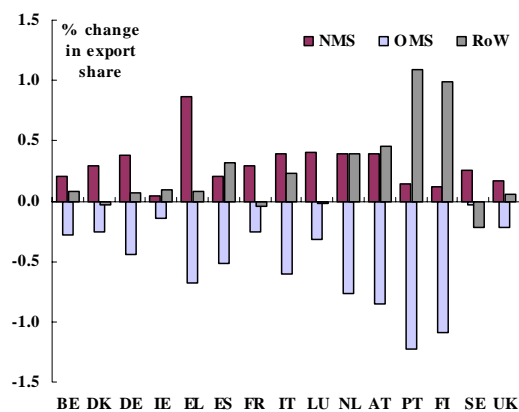
To sum up, the new Member States gradually increased their export market shares in all destination groups that were analysed in 1999-2007, which testifies to their growing competitiveness on the world market. By contrast, the old Member States as a group lost export market share, mainly on account of emerging economies. Based on the above analysis, it is difficult to draw general conclusions as to how enlargement itself influenced export market share dynamics.

1.3.2. Export structure by destination

An analysis of the geographical patterns of export and their evolution helps us to understand the integration process of the new Member States with the EU and the rest of the world through trade, which followed the economic isolation of the region before the transition (Table III.1.3). Indeed, it was in the 1990s that the most significant shift of the new Member States' exports towards the old Member States took place. Interestingly, afterwards and particularly after the 2004 enlargement, trade within the new Member States intensified. The new Member States were also redirecting their exports towards emerging economies. Their exports to CIS countries increased noticeably; in particular, exports to Russia doubled between 1999 and

2007. While the share of exports to China more than doubled to 0.7% in 2007, the share of exports to the US fell by 1.5 percentage points over the reference period. Japan and Latin America remained relatively stable destinations for new Member States' exports (with shares of 0.3% and 0.5%, respectively).

Graph III.1.5: Shifts of export destinations from a single old Member State, 1999-2007



Source: Eurostat (COMEXT)

The geographical structure of the old Member States' exports remained relatively stable between 1999 and 2007 (Table III.1.4). The decline in intra-EU-15 exports as a share of the total exports of the old Member States was partially mirrored in the increase in exports to the new Member States. The old Member States' exports to the rest of the world as a proportion of their total export did not change much between 1999 and 2007 (an increase of only 1.1 percentage points). Among the EU's major trading partners, it is worth noting the growing role of China as a destination of the old Member

Table III.1.4: Geographical destination of exports of old Member States

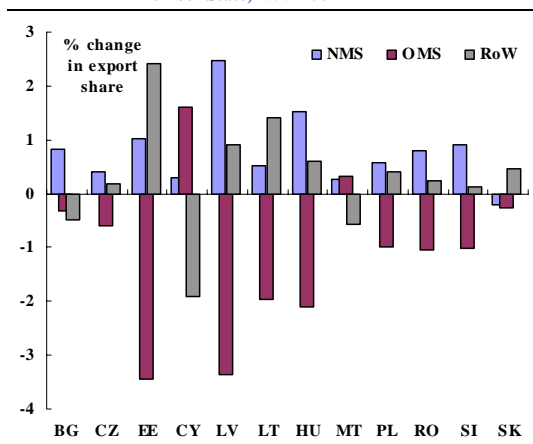
% of total	1999	2000	2001	2002	2003	2004	2005	2006	2007
EU-27	68.0	66.8	66.7	66.9	67.7	67.3	66.6	67.2	66.9
OMS	63.4	62.1	61.7	61.6	62.1	61.5	60.5	60.3	59.5
<i>Germany</i>	13.1	12.7	12.6	12.1	12.2	12.1	11.9	12.0	11.7
NMS	4.7	4.8	5.1	5.4	5.7	5.9	6.2	7.0	7.5
Rest of the world	32.0	33.2	33.3	33.1	32.3	32.7	33.4	32.8	33.1
CIS	1.0	1.1	1.5	1.6	1.8	2.0	2.2	2.5	2.9
<i>Russia</i>	0.7	0.8	1.1	1.2	1.3	1.4	1.6	1.8	2.1
China	0.9	1.0	1.2	1.3	1.6	1.7	1.7	1.9	2.0
Japan	1.7	1.8	1.7	1.6	1.6	1.5	1.4	1.3	1.2
USA	8.7	9.3	9.3	9.3	8.6	8.2	8.2	7.9	7.3
L. America	2.2	2.2	2.2	1.9	1.7	1.7	1.8	1.9	2.0

Source: Eurostat (COMEXT)

States, challenging the position that Japan had occupied since 2004. However, China still lies significantly behind the US as the major, non-European destination of the old Member States' exports (with shares of 2.0% and 7.3%, respectively, for China and the US in 2007).

Most of the EU Member States increased their exports to the rest of the world between 1999 and 2007, which confirms the ongoing process of integration of these countries into the global market. On the other hand, exports from Cyprus to the rest of the world showed the largest decrease among the EU Member States.

Graph III.1.6: Shifts of export destinations from a single new Member State, 1999-2007



Source: Eurostat (COMEXT)

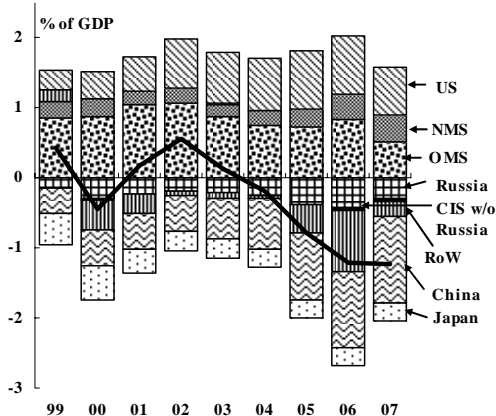
From a single country perspective (Graph III.1.5 or 6), major shifts of export destinations from the old Member States towards the new Member States are most visible in the case of the Baltic States, Hungary, Bulgaria and Romania (with increases ranging from 0.75 to 2.50 percentage points). At the other extreme, Slovakia's share of exports to the new Member States between 1999 and 2007 decreased. The share of exports directed at the old Member States increased only in the case of Cyprus and Malta, whereas it decreased slightly in all the other Member States, and more significantly in the three Baltic countries and in Hungary.

1.3.3. Trade balances by geographical destination

The trade balance of the old Member States improved between 2001 and 2003 and deteriorated after 2004 (Graph III.1.7) following the enlargement, but this was mainly due to increasing deficits with Russia and the rest of the world, in particular with China. Among the main trading partners, there was a trade surplus with the US and also with the new Member States, which increased slightly after enlargement. On the other hand, the trade balance between the old Member States and China continued to deteriorate between 1999 and 2007, while the trade balance of the old Member States with Japan remained stable during that period.

With regard to the new Member States (Graph III.1.8), trade deficits were recorded during the period under consideration, a trend which is consistent with the characteristics of the catching-up process, whereby buoyant imports support the transformation of the economy. While the trade deficit of the new Member States with the old Member States (excluding Germany) halved in 2007 compared to 1999 (Graph III.1.8), the new Member States recorded a growing deficit with Germany in the years after the 2004 enlargement.

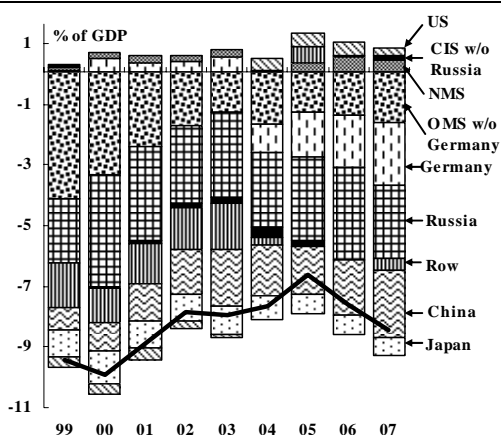
Graph III.1.7: Trade balance of old Member States in 1999-2007



Source: Eurostat (COMEXT)

As with the old Member States, net exports from new Member States improved in bilateral trade with the US and turned into a small surplus between 2004 and 2007.

Graph III.1.8: Trade balance of new Member States in 1999-2007



Source: Eurostat (COMEXT)

Lastly, bilateral trade between the new Member States and China is characterised by an increasing deficit, as the new Member States are also unable to compete with this country on the basis of its cheap labour and mass production.

1.4. PRODUCT COMPOSITION

The two previous sections showed that the new Member States increased market shares significantly between 2001 and 2007,

notwithstanding a seemingly large loss in cost competitiveness. The old Member States, on the other hand, lost market share against a background of a much smaller deterioration in cost competitiveness. As a result, other factors, such as changes in the product composition of the export basket, are deemed to have determined the recent trend in export market shares. Several recent papers point to the role of foreign direct investment in enhancing the growth potential of the new Member States (see also section IV.1). One aspect of the growth potential is the product composition of the export basket.

Before enlargement, it was expected that the new Member States would increase specialisation in labour-intensive products to take advantage of their lower labour costs. Contrary to expectations, large flows of FDI, mainly from old Member States, have led to a significant increase in the technological content and product quality of the export basket of the new Member States. The economies of the old Member States have taken advantage of enlargement to respond to the globalisation challenges by off-shoring a large chunk of their activities to the new Member States. The qualitative upgrading of production distinguishes the new Member States from other transition economies. This is where EU accession has made the difference, due to legal certainty, institutional stability and the absence of trade barriers.

In what follows, we will analyse the quality of the export basket of new Member States.

First, the shares in the export basket of the different product groups, according to classifications of products by factor and technology intensity, will be analysed. Attention will also be paid to developments in individual new Member States. Second, we will look at export market shares of new and old Member States in world markets by product group, classified according to factor and technology intensity. Finally, a calculation of unit value ratios will complement the analysis.

Table III.1.5: Breakdown of total exports by factor intensity

% of total	Raw-material-intensive			Labour-intensive			Capital-intensive			Research-intensive goods					
	goods (RMI)			goods (LI)			goods (CI)			Difficult-to-imitate (DIR)			Easy-to-imitate (EIR)		
	1999	2004	2006	1999	2004	2006	1999	2004	2006	1999	2004	2006	1999	2004	2006
BG	26	23	27	31	34	25	25	24	27	13	14	16	5	5	5
CZ	10	8	8	26	20	18	27	27	29	30	30	29	7	15	16
EE	32	21	32	30	32	23	10	12	14	9	13	15	18	21	16
LV	41	35	35	36	32	26	11	18	21	6	9	10	5	6	8
LT	37	45	44	35	25	22	9	10	13	14	15	14	5	6	7
HU	11	10	9	18	12	10	15	13	16	30	32	35	26	33	30
PL	18	16	16	34	25	22	21	25	27	21	26	26	7	7	9
RO	18	16	19	47	41	32	16	18	20	16	20	25	4	5	5
SI	5	4	6	33	27	22	27	29	32	26	29	28	9	11	11
SK	12	12	12	24	19	16	35	39	36	21	21	20	8	9	16
NMS	14	14	14	28	23	20	22	23	25	25	26	26	11	14	15
OMS	12	13	15	19	17	15	22	23	23	29	28	27	19	19	20
World	17	19	22	19	17	15	18	18	18	29	27	27	18	18	18

Note: The factor intensity breakdown is taken from Yilmaz (2002), see Havik and Mc Morrow (2006) for a detailed description. This breakdown splits goods trade into categories which reflect the intensity with which the various production factors are used.

Source: UN Comtrade

1.4.1. Factor and technology intensity of exports

Looking at the breakdown by factor intensity, new Member States have adapted over recent years the composition of their export basket towards the composition of the old Member States and the world. Specifically, a convergence towards these levels has been going on for the share of labour-intensive goods, with a large fall for the share in the new Member States, from 28% in 1999 to 20% in 2006. Similarly, the shares of research-intensive goods are converging, in a way which is even more impressive on a somewhat longer time scale: for difficult-to-imitate research-intensive goods, the share went up from 21% in 1995 to 26% in 2006, while the share of easy-to-imitate research-intensive goods increased from 8% to 15%.

Finally, in capital-intensive goods, the new Member States have become even more specialised than the old Member States in 2006. This is mainly due to the FDI-induced increased importance of the automotive sector. Exports of the automotive sector more than tripled between 1999 and 2006 and account for 13.5% of total exports of goods of new Member States in 2006 (up from 6% in 1995).

Regarding developments in the individual new Member States (Table III.1.5), the decline in the

share of labour-intensive goods and the increase in capital-intensive goods were broad-based⁽¹⁶⁾. The upswing in the shares of research-intensive goods showed some variation across countries. The Czech Republic and Slovakia have seen the largest increases for easy-to-imitate research-intensive goods, but for these countries (as well as for Estonia) this group is still only half as important as for Hungary, where it accounts for 30% of exports. Other countries lag behind, with Bulgaria and Romania at the bottom (5%). For research-intensive goods, which are difficult to imitate, the shares are somewhat more similar across countries, ranging from 10%-16% in Bulgaria and the Baltic States, up to 35% for Hungary. Between 1999 and 2006, the largest increase was seen in Romania.

Looking at the breakdown by technology intensity (Table III.1.6), new Member States significantly reduced their share of low-technology. Notwithstanding this impressive decrease, the low-technology share remains above 30% in Bulgaria, the Baltic States and Romania, and stands at 26% in Poland. Medium-high technology now accounts for a share of 42% in the new Member States, higher than the world

⁽¹⁶⁾ No reference is made to results for Cyprus and Malta. The small size of their manufacturing sector restricts data availability at the product level and reduces the relevance of developments in that sector. Services have a large weight in their exports (on average over the last four years: 33% in Malta and 83% for Cyprus, against 16% for the new Member States as a whole).

Table III.1.6: Breakdown of manufacturing exports by technology intensity

% of total	Low-technology industries (LTI)			Medium-low-technology industries (MLT)			Medium-high-technology industries (MHT)			High-technology industries (HT)			ICT industries (ICT) (part of HT)		
	1999	2004	2006	1999	2004	2006	1999	2004	2006	1999	2004	2006	1999	2004	2006
BG	44	45	34	29	30	39	25	22	22	2	3	4	1	3	3
CZ	22	19	15	23	21	22	47	46	47	8	14	16	6	14	16
EE	45	45	33	17	16	23	20	22	26	18	17	18	17	17	18
LV	73	68	52	11	15	21	14	15	22	2	2	5	1	2	4
LT	50	45	41	21	22	18	22	25	33	7	8	9	5	6	8
HU	22	19	11	11	11	16	42	41	45	25	29	28	26	29	28
PL	37	32	26	28	27	27	29	35	41	6	6	7	6	7	7
RO	55	54	39	22	18	21	20	22	36	3	5	5	2	6	5
SI	30	26	19	20	20	25	45	48	51	5	6	5	3	4	3
SK	23	25	16	25	21	21	47	49	47	5	5	15	5	5	15
NMS	31	28	21	21	20	22	37	38	42	11	13	14	11	13	14
OMS	22	21	18	17	16	19	43	46	46	18	18	16	13	12	12
World	22	22		17	16	19	37	38	39	24	24	23	19	18	18

Note: The technology breakdown has been developed by the OECD; see Havik and Mc Morrow (2006) for a detailed description of the classification. It groups manufacturing industries according to their skill / technology content.

Source: UN Comtrade

average, and not far below the share in the old Member States. For Latvia, Poland and Romania, this group made the biggest gains between 1999 and 2006.

A very positive development for the new Member States is that they have almost caught up with the old Member States in the area of high technology. Nevertheless, at 14% and 16% respectively, the shares of new Member States and old Member States still have a large gap in relation to the world average (which was 23% in 2006). Among the new Member States, the largest gains were seen in the Czech Republic and Slovakia. Finally, it should be noted that almost all exports of high-technology industries from the new Member States are from the ICT sector (compared to three quarters for the old Member States and the world). This may suggest that some other, potentially valuable, high-technology industries are absent in the new Member States.

1.4.2. Export market shares according to factor and technology intensity

The shift in the composition of the export basket of the new Member States towards more technologically advanced and research-intensive goods was larger than the corresponding shift in the export basket of the world. As a result, the export market shares of the new Member States for such goods should have increased (Graph III.1.9).

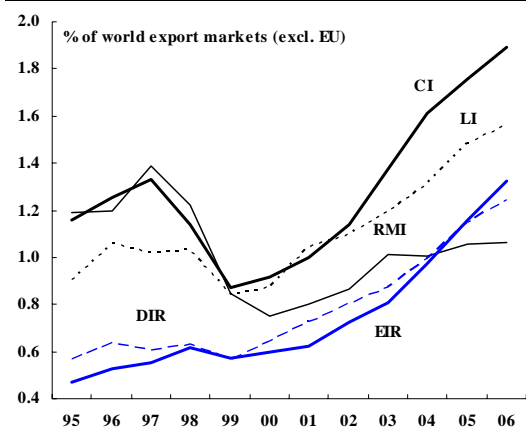
Looking at the breakdown by factor intensity, new Member States gained market shares of 0.7 percentage point up to 1 percentage point for each category between 1999 and 2006, except for raw material-intensive goods, for which the gain was only 0.2 of a percentage point. The largest gain was for capital-intensive goods, specifically between 1999 and 2004. This is also the category for which the new Member States' market share is the largest (1.9% in 2006, against 1.6% for labour-intensive goods and around 1¼% for the three remaining categories).

The overall loss of market share by the old Member States between 1999 and 2006 is the result of three distinct developments by factor intensity group (Graph III.1.10). First, only capital-intensive goods gained market share. As a result, the EU-27 market share for capital-intensive goods gained an impressive 1.8 percentage points and its market share level (at 25.3% in 2006) significantly exceeds the overall EU-27 share. Second, old Member States lost out in raw material-intensive goods and labour-intensive goods. These are logical losses in sectors where old Member States have no comparative advantage.

Thirdly, losses for the old Member States were also noted for both categories of research-intensive goods. The loss for easy-to-imitate research-intensive goods was very large (2.7 percentage points), but half of the loss occurred in the final year of the sample (2006), for which data are probably not yet fully stable. It remains

to be seen whether further releases for 2006 and, eventually 2007, will confirm the extent of the loss. While the loss for difficult-to-imitate research-intensive goods was only 0.9 of a percentage point between 1999 and 2006, the trend in its market share over a longer period is more worrying: it decreased from 27.6% in 1995 to 24.3% in 2006.

Graph III.1.9: New Member States: export market share by factor intensity

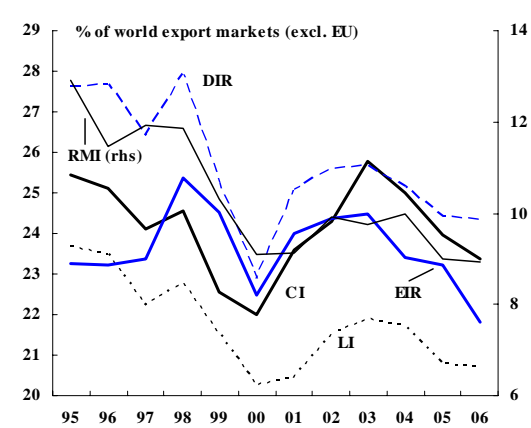


Note: Abbreviations: see Table III.1.5
Source: UN Comtrade

At the EU-27 level, the gains of the new Member States between 1999 and 2006 do not make up for the losses of the old Member States, although capital goods are an exception (see above). Specifically the loss for difficult-to-imitate research-intensive goods, although small (0.3 percentage point), does give cause for concern. Moreover, as for the old Member States, the loss for this sector has been sizeable since 1995 (down from 28.2% to 25.6% in 2006).

Looking at the breakdown by technology intensity (Graph III.1.11), between 1999 and 2006, the new Member States gained market shares of 0.8 and 1 percentage point for the two "medium" categories, against 0.5 of a percentage point for the remaining categories. While this seems to be a modest increase for the key high-technology industries, it denotes a slight acceleration of the build-up in market share. From a very low level of 0.2% in 1995, the share rose to 0.4% in 1999 and to 0.9% in 2006. The market share of new Member States for the other product categories is significantly higher (ranging from 1.5% to 1.9% in 2006).

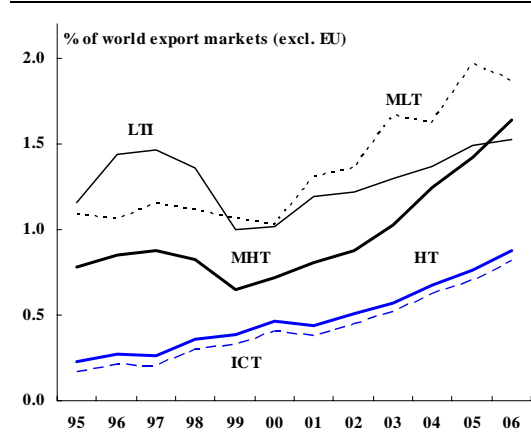
Graph III.1.10: Old Member States: export market share by factor intensity



Note: Abbreviations: see Table III.1.5
Source: UN Comtrade

The old Member States have been losing market share for all product groups (Graph III.1.12), except for medium-high technology, in which they had built up a very strong position with a market share of 29.8% in 2006. At first sight, the size of the loss for high-technology goods (3.1 percentage points) is very worrying. However, for easy-to-imitate research-intensive goods (Graph III.1.9) almost half of the loss occurred in the last year of the sample, for which the data may not yet be stable.

Graph III.1.11: New Member States: export market share by technology intensity



Note: Abbreviations: see Table III.1.6
Source: UN Comtrade

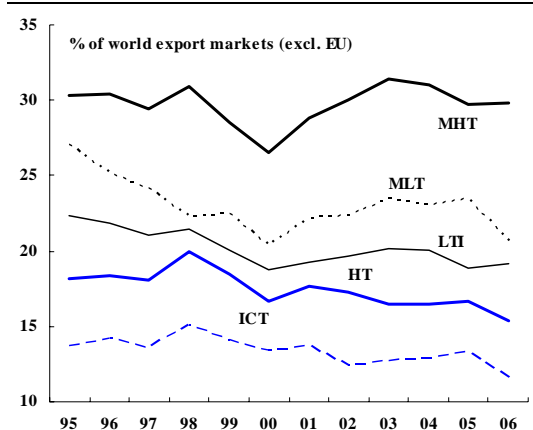
Nevertheless, the market share for high-technology goods is only about half of the share of medium-high technology goods. Again at the EU-27 level, the gains of the new Member States

do not make up for the losses of old Member States, only this time it is medium-high technology goods that are the exception.

For every product group, in both breakdowns, the evolution of the market share between 2004 and 2006 was much more unfavourable than between 1999 and 2004.

In some cases, a gain was even turned into a loss during this much shorter period. It is clear that competitiveness losses, mainly due to exchange rate developments, have played a large role. As a result, it is not straightforward to determine to which extent the EU's loss of market share is due to the emergence of new competitors, or to price and non-price competitiveness developments.

Graph III.1.12: Old Member States: export market share by technology intensity



Note: Abbreviations: see Table III.1.6
Source: UN Comtrade

1.4.3. Unit value indices

Up to now, the product composition of the export baskets has been analysed on the basis of specific groups of products. An alternative way to look at the content of an export basket is to analyse its average price, as estimated by unit value indices.

The unit value index of an export basket should be a proxy for its quality, on the assumption that a higher price reflects higher quality⁽¹⁷⁾. This assumption is based on the idea that consumers would be willing to pay more for the same

product if they perceive it to be of better quality (Fabrizio, Igan and Mody, 2007).

The unit value index of a traded product is defined as the value of the product divided by its physical weight. Unit value indices have to be analysed with the greatest possible caution. For example, if the analysis is not conducted at the most detailed product level, the unit value index will reflect the composition of the product group. Technological progress and exchange rate developments are two of the many factors which could influence the development of unit value indices over time.

One way of getting around most of the possible problems with unit value indices is by using the unit value ratios, which are obtained by dividing the unit value index for an individual product for a specific country by the corresponding unit value index for the world as a whole⁽¹⁸⁾. Over the sample, only products for which observations for unit value indices are available for each year for the specific country and the world are taken into account⁽¹⁹⁾. The weighted average of the individual unit value index ratios over all products results in a unit value ratio per country.

Between 1999 and 2006, unit value ratios went up in all new Member States and in 2006 even exceeded 1 for Latvia, Poland and Slovakia. The unit value ratios of the new Member States are still lower than the result for the group of old Member States (1.17 in 2006), but the gap is narrowing with time. Between 1999 and 2006, the median unit value ratio increase for the new Member States was 0.16 against 0.09 for the average of the old Member States. The fastest increases were observed (in that order) for Hungary, Poland, Latvia, the Czech Republic and Romania (all were faster than the median). On the other hand, the increment in Bulgaria and Estonia was smaller than for the old Member States' average. These two countries have also the lowest unit value ratio in 2006.

⁽¹⁸⁾ In this analysis, calculations were done at a very detailed product level: manufactured products in the SITC classification at 5 digits were taken, implying the potential use of 2678 products.

⁽¹⁹⁾ Products are also excluded (for a specific country or the world) if their unit value index shows a volatile development.

⁽¹⁷⁾ Recently this assumption has become more controversial, see for example Hallak and Schott (2008).

Table III.1.7: **Export quality as measured by unit value ratios**

World = 1	change between 1999 and 2006	level 2006
BG	0.05	0.82
CZ	0.19	0.94
EE	0.05	0.86
LV	0.22	1.00
LT	0.11	0.89
HU	0.28	0.89
PL	0.25	1.07
RO	0.17	0.91
SI	0.10	0.93
SK	0.16	1.01
OMS	0.09	1.17

Note: Methodology as in Fabrizio et al. (2007)
 Source: UN Comtrade

The analysis of unit value ratios is a useful complement to the analysis of the product composition of the export baskets by referring to specific groups of products. It also leads to the conclusion that the quality of the export baskets of the new Member States improved between 1999 and 2006. On the other hand, progress in individual new Member States is ranked somewhat differently using this calculation. One possible explanation for this difference is the reduced relevance of observed unit values due to the increased importance of intra-firm trade (see also Eden, 2001).

2. THE FUNCTIONING OF THE PRODUCT MARKETS IN THE RECENTLY ACCEDED MEMBER STATES

While the previous section in the chapter focused on the international dimension of the liberalisation of goods, and examined the drivers, composition and effects of foreign trade, this section assesses how the functioning of markets has evolved in the new Member States. First, it documents the shift to a knowledge society in order to set the scene for an analysis of competition from various angles. A section is devoted to the overall evolution of competition followed by one on governance and regulatory policies. Lastly, competition in specific sectors is examined, including telecommunication, energy, retail, postal and professional services.

2.1. SHIFT TOWARDS A KNOWLEDGE SOCIETY

The 12 new Member States still rely too a great extent on agriculture and traditional manufacturing, but the available indicators, which are presented in this section, clearly point to a structural shift towards services and the knowledge intensive economy, where resources such as know-how, expertise and intellectual property are driving factors of value added. These indicators also reveal that, on average, in terms of knowledge intensity the new Member States are still lagging behind the old Member States and several emerging markets outside the EU.

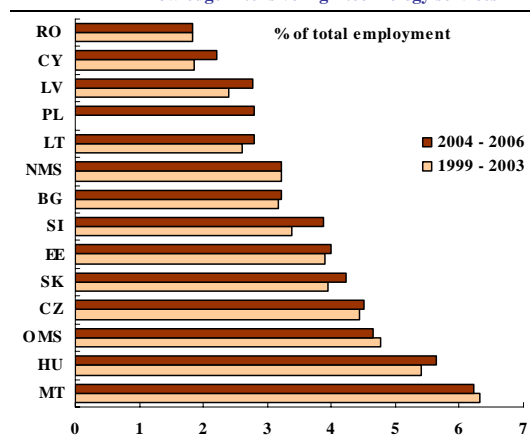
Moreover, the widespread dissemination of Information and Communication Technology (ICT) has brought profound changes to the new Member States. Over the years the cost of information has fallen and the most valuable asset is investment in intangible, human and social capital. ICT has triggered various types of innovations and has changed the way of working and living.

2.1.1. High-tech manufacturing and knowledge-intensive high-technology services

The high-tech manufacturing and knowledge-intensive sectors use or develop the most advanced technology or methods, so they are

considered to have the highest potential for future growth and wealth creation. In nine of the new Member States the share of people employed in high-tech manufacturing and knowledge-intensive high-technology services has increased in recent years (Graph III.2.1).

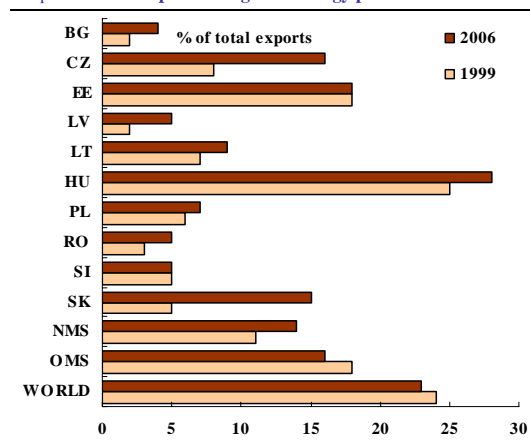
Graph III.2.1: Employment in high-tech manufacturing and knowledge-intensive high-technology services



Source: Eurostat

Furthermore, the share of high-tech exports has increased slightly in several new Member States. Estonia and Hungary had already a high share of high-tech exports in the pre-accession period, while the Czech Republic and Slovakia made an impressive post-accession jump (Graph III.2.2).

Graph III.2.2: Exports of high technology products

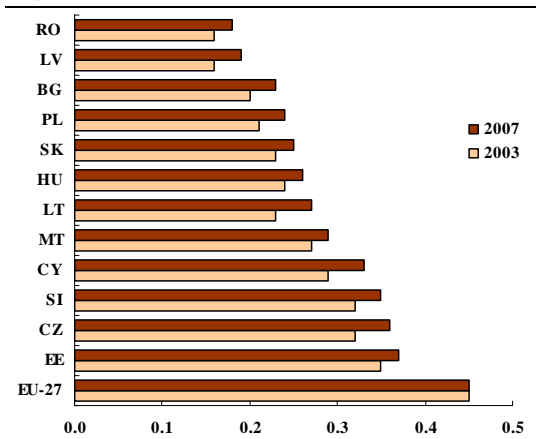


Source: Table III.1.6 in Chapter III.1

2.1.2. Capacity to innovate

The European Innovation Scoreboard is the most comprehensive output indicator, which characterises the shift towards a knowledge-based economy. There is a clear upward trend in the capacity to innovate in the 12 new Member States, whereas the innovation performance of most old Member States is either stagnating or declining (Graph III.2.3).

Graph III.2.3: The European Innovation Scoreboard



Source: European Innovation Scoreboards

Unsurprisingly, most new Member States are characterised as ‘catching-up countries’ (Bulgaria, Hungary, Latvia, Lithuania, Malta, Poland, Romania and Slovakia) but other have evolved into moderate innovators (Cyprus, Czech Republic, Estonia, Slovenia). There is a general process of convergence, and innovation followers are closing the gap on innovation leaders. The Czech Republic, Estonia and Lithuania could reach the EU innovation average within 10 years.

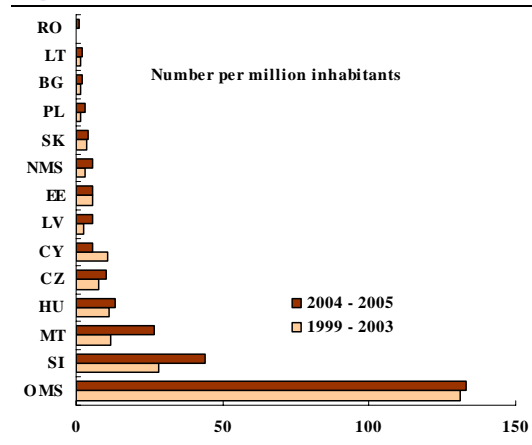
2.1.3. Patent applications

For all new Member States, except Cyprus and Estonia, the number of patent applications to the European Patent Office is growing, but is still well below the average of the old Member States (Graph III.2.4). The countries with the highest increase in applications are Slovenia and Malta.

As regards the number of patents granted by the United States Patent and Trademark Office, the data for the new Member States (in terms of patents per million inhabitants) show significant

increases between 1999-2003 and 2004-2005. Bulgaria and Slovenia have recorded the biggest percentage increase since 1999.

Graph III.2.4: European Patent Office applications



Source: Eurostat

2.1.4. R&D expenditure

Research and development (R&D) activities consist of creative work undertaken on a systematic basis in order to increase the stock of knowledge and the use of this stock of knowledge to devise new applications. R&D intensity represents R&D expenditure as a percentage of GDP.

The R&D intensity in the 12 new Member States is far below the EU average (see Chapter VII.1). It is also lagging behind a number of emerging markets outside the EU which have further increased their lead since 2004 (notably South-Korea, Singapore and Russia). However, significant increases can be observed for Estonia, Malta, Czech Republic, Lithuania and Latvia.

2.1.5. Skills

One of the reasons why skills and lifelong education have become so important is the acceleration of scientific and technological progress. Despite the increased duration of primary, secondary and university education, the knowledge and skills acquired there are usually not sufficient for a professional career.

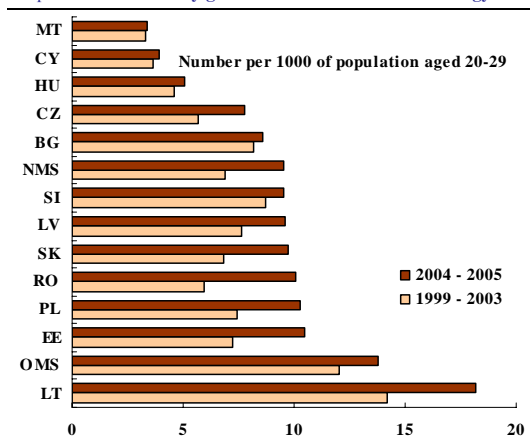
Cyprus channels nearly 7% of its GDP into public investment in education - one of the

highest levels in the EU. Bulgaria, the Czech Republic and Romania are catching up in the areas of public investment in education and training, while private investment in education is significant only in Cyprus and Slovakia.

In Malta almost all pre-school children (4 years old) receive education. Slovenia (+11%) and Romania (+15%) have achieved significant increases in this area since 2000.

The new Member States are among the best performing countries in the EU in terms of their upper secondary attainment: the Czech Republic, Poland, Slovenia and Slovakia are above 90%; Lithuania and Cyprus are above 85% and Malta (+14%) has made significant progress (from a low base).

Graph III.2.5: Tertiary graduates in science and technology



Source: Eurostat (2008f)

All new Member States display are achieving increasing shares of tertiary graduates in science and technology. Romania and Lithuania had the highest increase (Graph III.2.5). The only data that can be compared worldwide are the number of researchers per million inhabitants, where old and new Member States have increased their respective figures. However, the new Member States (on average 1.574 researchers per million inhabitants in 2004-2006 according to Eurostat) still lag behind the old Member States (2.905 researchers per million inhabitants) and competitors such as South Korea and Hong-Kong (3.732 and 2.090).

2.2. OVERALL EVOLUTION OF COMPETITION

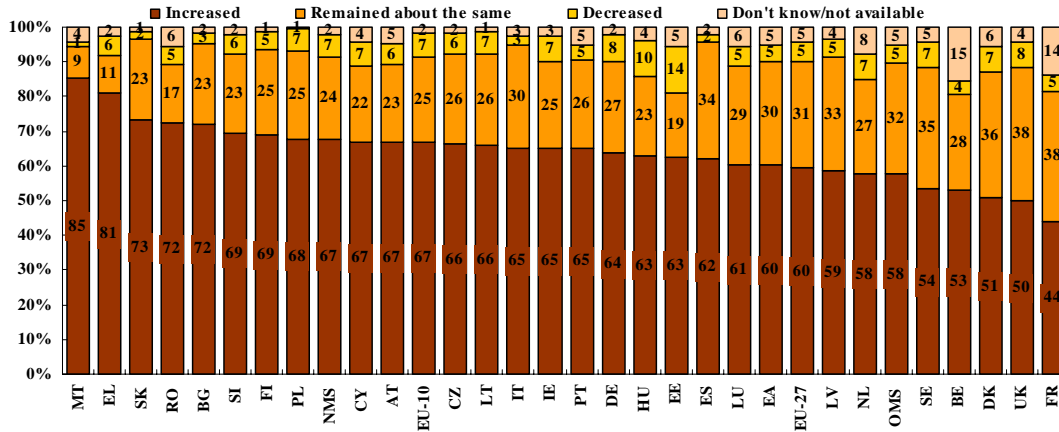
Perceptions among the business community suggest that competition in the new Member States is increasing significantly and the widened business advantages provided by the EU Single Market play an important role in the expansion of business activities in the new Member States:

(1) A representative pan-European survey (Observatory of European SMEs, 2007) shows that 67% of enterprises in the new Member States report increased competition within their markets while only 7 % of them believe that it decreased during the last two years (Graph III.2.6). In the old Member States, competition seems to have increased somewhat less: 58% of their enterprises report increased competition and 5 % report that it has decreased during the last two years. According to the perceptions recorded in the survey, competition has intensified in all new Member States more than on average in the old Member States, which indicates that the new Member States have overall well functioning markets and that increased competition is underpinning the catching-up process at the macro-economic level.

(2) According to the same survey, the features of the Single Market of the EU are highly important for the business activities of enterprises located in the new Member States, even though a comparatively large number of their enterprises do not appear to operate in foreign EU markets (about 40% compared to one third of enterprises in the old Member States). A relatively high share of enterprises in the 12 new Member States attributes significant importance to the Single Market legislation (46% as compared to 37% in the old Member States). This indicates that the enterprises in the new Member States are relatively well integrated in the EU. The same currency in most of the EU Member States and the absence of border controls are the second and third most important Single Market features for enterprises in the new Member States.

Within the new Member States the increase in quality, which within the entire EU is the most frequently mentioned strategy to deal with increasing competition, is a particularly popular response in Estonia (86%), Slovakia (81%), Romania (79%), and Bulgaria (78%). It is the

Graph III.2.6: Perceived development of competition



Note: Based on all enterprises surveyed (17283), including large enterprises. Question: Has competition within the markets of your enterprise altogether decreased or increased during the last two years?
Source: Eurobarometer

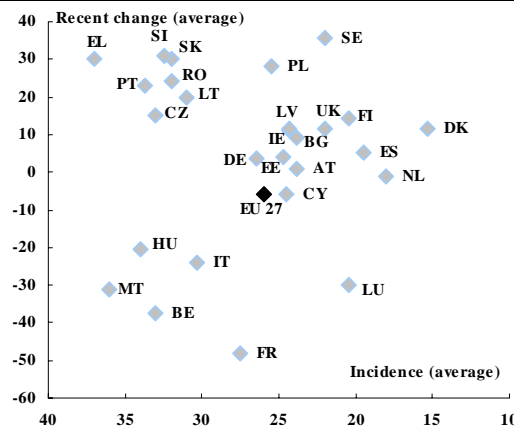
most important strategy in the Czech Republic, Estonia, Hungary, Slovakia and Bulgaria.

The survey also enquired about the state of play and development of nine potential constraints that enterprises, especially small and medium sized enterprises (SMEs), typically have to face, including limited access to finance and problems with administrative regulations (Graph III.2.6).

The upper right section in Graph III.2.6 is the most advantageous one, where SMEs face only a few obstacles and most of those who do face obstacles consider, on balance, that their situation is either unchanged or improving. Especially Nordic countries are in this situation, but also Bulgaria, Estonia and Latvia. The upper left square includes those countries whose SMEs are constrained more than the EU average, but whose situation is unchanged overall or even improving. The countries belonging to this group are predominantly the new Member States (Czech Republic, Slovakia, Slovenia, Lithuania, Poland, and Romania). The bottom right area includes those economies where a relatively low proportion of SMEs face one of the typical difficulties investigated, but they dominantly report a worsening situation (Luxembourg and – marginally – Cyprus). Finally, the most disadvantageous location on this map is the bottom left square with countries whose SMEs are not just troubled by the various constraints, but have experienced a further deterioration in

their situation: France, Belgium, Italy, Hungary and Malta.

Graph III.2.7: Incidence and change of business constraints



Note: Based on SMEs only (16339 of the total of 17283 enterprises). There are nine constraints covered: limited access to finance, costs of labour force, lack of skilled labour, implementation of new technology, implementation of new forms of organisation, lack of quality management, administrative regulations, problems with infrastructure, problems with the purchasing power of customers.
Source: Eurobarometer

Hence the overall picture is encouraging, since for 9 out of the 12 new Member States the perception on business constraints seems to have improved. However, SMEs in most of the new Member States are more conscious of constraints on their business activities than in the old EU Member States. This applies for instance on business constraints due to limited access to finance, with 25% of the SMEs of the new member States reporting constraints in this area

as compared to 21% of the SMEs in the old Member States. The situation in the area of infrastructure is similar. Many more enterprises in the new Member States than in the old Member States perceive this area as constraining their business activities, but the effort to reduce these constraints is – not least due to the contribution of the EU cohesion policy – significantly greater in the new than in the old Member State.

A closer examination of the birth and survival rates of enterprises does not show any clear trends until 2005 (the latest year for which data on business demography are available in Eurostat). Birth rates increased between 2002 and 2005 in four Member States (Bulgaria, Cyprus, Slovenia and Romania), indicating the existence of an environment which is favourable to competition. However, in six Member States (Czech Republic, Estonia, Hungary, Lithuania, Latvia and Slovakia) the numbers have remained unchanged or have decreased during this period (for Malta and Poland no data are available).

2.3. GENERAL GOVERNANCE OF COMPETITION AND REGULATORY POLICIES

The Europe Agreements, which were signed between the EU and the twelve countries which joined on 1 May 2004 and 1 January 2007, contain competition rules equivalent to those found in the Treaty. Furthermore, the accession process required that these countries implement EU competition rules in their domestic law. Hence, the competition law regimes have been developed on a permanent basis. The reform of the implementing EU regulations entailed further changes in national competition legislation. Consequently, in the past five years the new EU Member States have either enacted new competition laws or amended their existing competition acts in order to increase the powers of their national competition authorities. These laws have now extensively converged with the EU competition rules. Importantly, the provisions of the new regulation on the enforcement of the European competition rules laid down in Articles 81 and 82 of the Treaty, has been implemented in all new Member States with effect from their dates of accession to the

EU (Council of the European Communities, 2003).

Each new Member State has set up a national competition authority responsible for enforcing national competition law as well as the EU competition rules. Despite significant efforts and general progress, the enforcement of competition law remains a challenge in some of the new Member States. A few Member States are still in the process of adapting their national legal framework to enhance effective enforcement. In addition, some of the authorities face budgetary constraints and/or have to cope with significant fluctuation of staff, which in most cases are not easy to resolve.

As from 1 May 2004, the Commission and the national competition authorities have formed a cooperation network entitled the European Competition Network. Its main purpose is to secure the efficient and coherent application of EU competition rules by the Commission and the competition authorities in the various Member States. For this purpose, the European Competition Network relies on legal tools in the relevant regulation that provides for the possibility to exchange case-related information and to give assistance with investigations to other authorities. It also lays down information obligations aimed at effective work sharing and coherent decision-making in the application of the EU Treaty competition rules. The European Competition Network has furthermore become an important framework for voluntary and informal cooperation between the authorities concerned.

Leniency programmes are important cross-sectoral tools to uncover cartels⁽²⁰⁾. The network members have elaborated a Model Leniency Programme, with the aim of removing the most damaging discrepancies between the different European programmes and to facilitate multiple leniency filings in Europe. Whilst the Model Programme is not a legally binding document and does not prevent members from adopting a

⁽²⁰⁾ The leniency program applied by the European Commission is currently set forth in the Notice on Immunity from Fines and Reduction of Fines in Cartel Cases (the “Leniency Notice”), *Official Journal of the European Union*, C 298, 8.12.2006, p. 17.

Table III.2.1: Total state aid

	2000-2003		2004	2005		2006		
	OMS	EU-10	OMS	EU-10	OMS	EU-10	OMS	EU-10
Total aid, million €	34000	5654	56400	5200	58700	5100	44000	3200
% of GDP	0.4	1.4	0.4	0.7	0.4	0.5	0.4	0.5

Note: Total aid less agriculture, fisheries and transport

Source: European Commission (2007d)

more favourable approach towards applicants, the ECN members have undertaken to use their endeavours to align their respective programmes with it. The Model Programme also introduces a summary application system that facilitates the procedure when an applicant wants to protect its position with one or more national competition authorities in addition to the Commission. This will save resources for both applicants and authorities. Today, all the Member States, except for Slovenia and Malta, have leniency programmes, whereas in 2002 only four Member States operated such programmes. Slovenia and Malta are also in the process of developing such programmes and are expected to adopt them soon.

2.4. STATE AID

Before accession, candidate countries had “to demonstrate the existence of a functioning market economy as well as the capacity to cope with competitive pressure and market forces within the Union”. From the beginning, State aid control had been understood in the enlargement process as contributing to a properly functioning economy. Future Member States were requested in the pre-accession period to put in place a proper legislative framework and develop an adequate administrative capacity to control State aid measures, through State aid monitoring authorities. The idea was to ensure that the candidate countries would be ready to implement Community State aid rules at the time of accession, by slowly getting companies and public authorities accustomed to a similar State aids discipline.

The candidate countries accepted that approach and underwent a strict screening of their State aid measures before the accession phase. In May 2004, they were ready to apply State aid rules for the future, having ensured that some existing aid would benefit from a transition mechanism. They

simultaneously endorsed the Lisbon objectives to reduce and redirect State aids towards horizontal objectives including cohesion.

How have these objectives been pursued throughout the period from the date of accession?

1) A clear reduction of the level of State aid in the new Member States can be noted between 2004 and the year with the latest available data (2006), in absolute terms and as a percentage of GDP (Table III.2.1). The sharpest falls in the new Member States can be observed in the Czech Republic, Cyprus and Malta, largely owing to the phasing out of pre accession measures, and in Poland due to the declining aid to the coal industry, (European Commission , 2007d). In some other Member States the decrease is smaller due to some sector specificities (aid to steel in Slovakia, for example). The reduction trend in the new Member States (as well as in EU as a whole) is a sign that these countries have continued their efforts after accession to adjust their state aid policies and practices to the EU requirements in that field. This is particularly noteworthy as these countries had to face huge structural changes. The introduction of new principles and institutions in managing projects through the EU regional policy contributed to this aspect.

2) At 0.5% of GDP in 2006, State aid in the new Member States nevertheless remains higher than in the old Member States. Among the new Member States it ranges from 0.08% in Estonia to 1.77% in Malta. These significant variations reflect the singularity of each country, its industrial and economic structure and its priorities, but they are also influenced by a relatively small number of cases.

3) All new Member States are successfully redirecting their State aid policies towards horizontal objectives, including cohesion (Table

III.2.2). Horizontal objectives cover aid for environment and energy saving, SMEs, employment, regional development, R&D, training and other horizontal objectives such as culture. By contrast, sectoral aid covers shipbuilding, coal, steel, restructuring aid and other non-manufacturing or services-related aids. This illustrates the efficiency of the implementation of State aid by the monitoring authorities which has contributed to the goal of making public authorities and companies accustomed to the requirements of EU State aid laws and practices. It also expresses the efforts of the new Member States to contribute from the outset to commonly decided objectives.

Table III.2.2: State aid: sectoral and horizontal objectives

% of total	2002-2004		2006	
	Sectoral objectives	Horizontal objectives	Sectoral objectives	Horizontal objectives.
EU-10	77	23	22	78
EU-25	32	68	15	85

Note: Total aid less agriculture, fisheries and transport
Source: European Commission (2007d)

2.5. COMPETITION IN SPECIFIC SECTORS

2.5.1. Telecommunication sector

The telecommunication sector is very important for growth, competitiveness and employment. In the four years up to 2008, the value of all telecommunication markets of the 12 new Member States had increased by 38% to an estimated € 26.4 billion. In comparison, growth in the old Member States was much slower: only 6% over the same period. Although admittedly starting from a relatively low base, the telecommunications market of the new Member States has been one of the main drivers of growth in the overall EU market, driven by mobile services and, to a lesser extent, by broadband services.

Regulatory context

The European Commission is responsible for providing a common European regulatory framework for the telecommunication industry and for monitoring its implementation ⁽²¹⁾. All

Member States must establish independent national regulatory authorities responsible for the implementation of regulations within the country's territory. The main tasks of these authorities, as defined by the relevant Commission Directive (Council of the European Communities, 2002), are consumer protection and the establishment of an innovative, competitive, and sustainable telecommunication industry. The new Member States had to adapt their corresponding regulations and authorities to the existing regulatory telecommunications package of the EU to meet the accession obligations. Additionally, they have had to accommodate changes in the European regulatory framework which took place after the accessions. The revision launched in 2007 seeks to bring the framework up to date for the fast-developing telecommunication sector in an enlarged Union.

Application of the regulatory package

Due to the adoption the EU acquis, the telecommunication markets in the new Member States are now liberalised. In this context, independent regulatory offices have been created in the two youngest Member States.

Market opening has effectively led to more competition in terms of the number of competitors. While in some countries (such as in Bulgaria) the market shares of the incumbent still remains very high, alternative operators in other new Member States already have significant market shares, in terms of both infrastructure and mobile phone competition (European Commission, 2007b). In the Czech Republic, for instance, 66% of wireless infrastructure-based competition in 2006 already involved new entrants. According to the most recent figures, the biggest decline of an incumbent's market share in the fixed telephone market of the EU was seen in the Czech Republic (from 72% in 2005 to 64% in 2006). Recent figures on Slovenia are also promising, since in all Slovenian telecommunication markets (fixed, internet, mobile) there were important new

⁽²¹⁾ This framework is explained in detail at the following website:

http://ec.europa.eu/information_society/policy/ecommu/rent/index_en.htm.

entries in 2007 and 2008; it is therefore likely that the incumbent's share will decrease further.

Importantly, the EU telecommunication markets, including those of the new Member States, have exhibited increasing volumes and falling prices over the last few years⁽²²⁾.

The full implementation and enforcement of the telecommunication framework is expected to boost competition and push prices further down. In fact, several National Reform Programmes, like that of the Czech Republic, emphasise the need for a continuing liberalisation and strengthening of competition in the electronic communication market (National Reform Programmes, 2008). Cyprus is a good example of how the continuous implementation of the framework is bearing fruit⁽²³⁾. Lithuania is another example where the enforcement of EU law by the national regulatory authority is leading to more competition⁽²⁴⁾.

Given the significant technical differences across the telecommunication markets, each segment needs to be viewed separately.

Fixed telephony

The fixed telephony market was not open to competition on 1 May 2004 in the majority of the new Member States, where only the national incumbent was authorised to provide services. The State still held a controlling stake in the

fixed incumbents of eight countries. Competition has gradually started to develop in those countries.

The competitive landscape has changed in the last five years, and as of June 2007, the market had been completely liberalised in all the new Member States, where more than 450 operators (as compared to 100 in 2002) are offering public voice telephony, i.e. an average of 38 operators per country, at both national and local level (European Commission, 2007b). However, as it happened in the old Member States, many new entrants concentrate their business at the outset on specific segments of the market or limit their activities to local areas, thus having a limited impact on the national market as a whole.

Mobile market

The strong dynamism in the mobile phone market reflects the high level of competition in this sector: The growth of the mobile market in the new Member States countries took off between 2002 and 2007, and at the end of 2007 some of these countries are amongst the countries with the highest mobile penetration rates in the EU (European Commission, 2007g, pages 7-17).

On average, the mobile penetration rate of the twelve new Member States amounted to 105%⁽²⁵⁾ in 2007 - only 7 percentage points below the EU average rate. In two thirds of the new Member States, each inhabitant has on average more than one mobile subscription (only Malta, Poland, Romania and Slovenia have penetration rates below 100%). With penetration rates of 144% and 140% respectively, Lithuania and Latvia are among the top three performers in the whole of the EU. The relatively strong competition in the new Member States is underlined by the fact that small economies like Latvia and Lithuania have the same number of mobile network operators (3) as the French economy; Estonia has the same number of operators (4) as Germany, Italy and Spain.

⁽²²⁾ Concrete figures are published in the annual implementation reports of the EU framework, which are accessible at the following website:

http://ec.europa.eu/information_society/policy/ecomm/library/communications_reports/index_en.htm

⁽²³⁾ The sectoral regulator completed in 2006 the audit of the incumbent's costing system to determine the cost of retail and wholesale services; the results of this audit have been used in the review of the incumbent's reference Interconnection Offer and the Retail Price Control Measures imposed on the incumbent. In the previous year, the incumbent was fined with a significant amount for abusive conduct in the mobile telephony market by the Cyprus Commission for the Protection of Competition.

⁽²⁴⁾ Concretely, the national regulation authority requested the incumbent to apply non-discriminatory technical investigation deadlines, not to charge a technical investigation fee, and to give access to the network information system free of charge.

⁽²⁵⁾ The mobile penetration rate is defined as the number of mobile telephone active cards per 100 inhabitants. This rate can exceed 100% as consumers may have more than one card.

Number portability, which enables mobile subscribers to keep their number when they move from one operator to another, is considered as a key measure for promoting competition within the telecommunication sector. Thus, under the terms of an EU-Directive which took effect in July 2003, all EU Member States are required to introduce number portability. It is encouraging that all new Member States – except Bulgaria and Romania – had implemented this competition factor by the autumn of 2007.

Also regarding the deployment of the new generation mobile telephony (so-called G3 phones), offering enhanced services such as video calls and mobile internet, competition is improving in the new Member States, given that the latter are increasingly granting the relevant licences⁽²⁶⁾.

Broadband market

There were significant differences in the broadband market at the time of the 2004 accession. Whereas in 2004 the market share of the incumbent operator in the total national telecommunication market amounted to around 30% in Malta or Lithuania (EU average: 56%), the incumbent in Cyprus in the same year controlled 100% of the broadband market and in Poland and Latvia as much as 94% and 81% respectively. Competition is highly dependent on the availability of alternative networks. Specifically in the DSL market, where broadband access is provided through the existing telephone network, incumbents in many new Member States still dominate the market. Nonetheless, growth in the broadband market has constantly remained high in recent years.

A crucial condition to enable competition of broadband services is the availability of corresponding infrastructure. At the end of 2005, 87% of the EU territory was covered by DSL, i.e., a technology that enables the provision of data transmission over the wires of the traditional telephone network. However, this figure hides large disparities between urban (93%) and rural (66%) areas, as well as between old Member

States (91% national coverage, 96% urban coverage, 72% rural coverage) and new Member States (69% national coverage, 62% urban, 42% rural). Significant investments to upgrade the networks have been made in the past few years and at the end of 2007 many new Member States enjoyed coverage rates similar to many of the old Member States. At the end of 2007 national coverage in the new Member States was 79% on average, i.e. 88% in urban areas and 64% in rural areas.

2.5.2. Energy sector

Properly functioning energy markets that ensure secure energy supplies at competitive prices are key to achieving growth and consumer welfare in the European Union. To attain this objective the EU decided to open up Europe's gas and electricity markets to competition and to create a single European energy market. The process of market opening has significantly changed the functioning of the markets, provided new market opportunities and led to the introduction of new products and services (European Commission, 2006d).

Almost all new EU Members States have formally opened their national energy markets. From a legal viewpoint, the consumers from these countries are now able to choose their supplier and benefit from competition. In the case of some new Member States to which derogations have been granted within their accession treaties, this liberalisation process is foreseen to be concluded by 2013 (Malta, Cyprus, Slovenia, Czech Republic) (European Commission, 2007g).

Notwithstanding, problems such as high market concentration and vertical integration of energy production, infrastructure and distribution remain a problem in the old as well as the new Member States. To remedy this situation, the legislative proposal of the European Commission of September 2007 on electricity and gas markets requires the effective unbundling of transmission system operators and supply and production activities not only at national level but throughout the EU (European Commission, 2007g). It means in particular that no supply or production company active anywhere in the EU can own or operate a transmission system in any

⁽²⁶⁾ Malta, for instance, has awarded since 2007 three respective concessions.

Member State of the EU. This requirement applies to EU and non-EU companies alike. The purpose of this proposal is to ensure that all European citizens can take advantage of the numerous benefits provided by a truly competitive energy market. It illustrates that, in the energy markets too, EU membership might further strengthen competition in the new Member States.

2.5.3. Retail

Since accession to the EU the retail sector has developed rapidly in all new Member States, generally due to investment made by major Western European retailers (London Economics and RPA, 2008). Rapidly developing modern retail formats, increased interest on the part of pan-European retail companies and rising living standards are among the main factors which have contributed to a high level of dynamism and significant consolidation of retail markets in these countries (European Retailing 2010, 1998). Moreover, the supermarket networks have expanded quickly in recent times because they have been perceived by the consumers from these countries as offering an increased choice and low prices.

At present, the high concentration rate is tending to become one of the main characteristics of retail markets (e.g. food retail chains), especially in small Member States like Slovenia and Latvia. Following the accession negotiations, the national anti-monopoly legislation was harmonized with EC competition rules. In some new Member States such as Lithuania, Romania and Hungary, producers and retailers have signed so-called codes of conduct (e.g. "*Code of Fair Conduct*", "*Guide of Good Practices*", "*Common Code of Ethics*"). For example, in the case of Romania the guide refers, among others, to ways of establishing the sale price, which is negotiable and depends on the advantages offered to the retailer (discounts, bonus) and the costs of the services provided by the retailer and invoiced onto the producer.

Although the state-of-play in terms of competition is different in each subsector of the retail sale of new goods by specialised non-food retailers, there are some common trends. Over the last five years a downward pressure on prices

can be observed across all the new Member States, especially in relation to electrical goods, which indicates strong competition. The entry of large international retailers in both specialised and non-specialised sectors has intensified the competition for domestic players in these areas. A further strengthening of competition is likely to come from supermarkets, which are now competing in most of the sub-markets included in this sector (e.g. clothing, furniture, electrical goods).

2.5.4. Postal services

Regulatory framework

Postal services in the EU are covered by the Postal Directive (Directive 97/67/EC as amended by Directive 2002/39/EC and Directive 2008/6/EC). It constitutes a regulatory framework which guarantees citizens a high quality universal service at least five times a week, on the whole territory, at an affordable price, while gradually limiting the scope of the reserved area⁽²⁷⁾. As required by the Directive, the Commission had confirmed by the end of 2006 the target of full market opening by means of a further amending Directive. This amending Directive (the third Postal Directive – Directive 2008/6/EC) was adopted, by the Council and the European Parliament, on 20 February 2008. It provides for the full liberalization and establishment of the internal postal market by abolishing any remaining exclusive rights by 31 December 2010. In particular, the Commission will pay close attention to potential entry barriers that might deprive users of the benefit of a dynamic and open market. Some Member States have been granted the possibility to postpone full market opening by a maximum of two more years and the inclusion of a temporary reciprocity clause applying to those Member States that make use of this transitional period. This possibility applies all new Member States, except Bulgaria, Estonia and Slovenia – and to Greece and Luxembourg. However, the Member States with derogation rights may decide to fully liberalize their national postal markets before the end date envisaged in the Directive.

⁽²⁷⁾ Initially letter mail under 350 grams, amended in 2002 to 100 grams and reduced on 1/1/2006 to 50 grams.

Implementation of this regulatory framework

In March 2005, the transposition of the Community framework during the period from 1997 to 2002 had been largely completed although there were some problems affecting a number of the new Member States in particular (European Commission, 2005a). In 2006, all Member States had notified the transposition of this framework, including those which joined the Community in 2004 (Commission of the European Communities, 2006e). Also, the further limiting of the reserved area (to 50 grams) on 1 January 2006 has been transposed in all Member States.

Many National Reform Programmes (e.g. of Estonia, Poland and Cyprus) which the new Member States have prepared in the context of the Lisbon Strategy for Growth and Jobs (National Reform Programmes, 2008) indicate further progress well ahead of the deadline fixed for transposition of the third postal Directive.

Effective competition

In several new Member States the application of the EU legal framework has already led to a significant increase in competition. Romania is the most impressive example, given that in autumn 2007 the number of existent providers on the market reached 248 as compared to 7 at the end of 2001. Also the case of Poland illustrates a significant increase in competition: in June 2007 there were 171 operators as compared to 90 in 2004. In Slovakia, 20 postal enterprises have been registered on the basis of general permits issued by the Postal Regulation Office⁽²⁸⁾. These developments underline the fact that full application of the EU framework has led to more competition for the benefit of the consumers, without compromising full universal services to citizens.

⁽²⁸⁾ It should however be noted that on 7.10.2008 the Commission adopted a decision of application of Article 86(3) against Slovakia in relation to so-called hybrid mail services. The Commission found that, by reserving to the postal incumbent the delivery of hybrid mail, a service which was so far open to competition, the Republic of Slovakia has infringed Article 86 in conjunction with Article 82.

2.5.5. Professional services

Generally the market is characterised – as in the old Member States - by a high level of entry and conduct regulation. However, there is no single picture which characterises all the new Member States in this field (London Economics and RPA, 2008). In the majority they are close to the European average. However, there are some deviations: for example, the regulatory indicator for legal services in Czech Republic and Slovakia is one of the highest in the EU. The Czech Republic also has one of the highest regulatory indicators in the EU in the field of accounting services.

An analysis of the concentration ratio reveals a lack of common trends, even when analysing the most basic indicator of competition in the market, i.e. the concentration ratio. This ratio is relatively high in legal and accountancy services by comparison with other subsectors and reflects the situation in the EU as a whole. Bulgaria is one of the countries with the highest concentration ratio in EU-27 (the market share of the four largest companies is close to 80% in legal services and 70% in accountancy). Estonia, on the other hand, has one of the lowest scores in Europe as far as legal services are concerned (the market share of the four largest companies is close to 20%), and Hungary is the leader in accountancy with a ratio of around 20%. Hungary, in its turn, is a case that merits further study as far as management consultancy services are concerned: the concentration ratio and profit rates of the top companies were high in relation to what is seen elsewhere, and the largest company also has a large market share in relative terms. On average, the concentration is definitely lower on the market for architecture and engineering services. The exceptions in this subsector are Lithuania and Latvia, which have the highest concentration ratio in Europe (90%).

Data on profitability reflect this diversity, but not in the way that might have been expected ex ante. Profitability is higher, on average, in countries displaying low concentration ratios than in those where only one or more firms are active. It is currently not clear whether this is due to government measures preventing excessive profits, or whether other factors are determining this outcome.

The diversified picture of the situation on the market is repeated when one looks at foreign direct investments in the sector. Cyprus and Estonia are amongst the European leaders for which the stock of inward FDI accounts for more than 100% and 150 % respectively of domestic annual turnover. Hungary, with its 50% share, is close to the EU average, while the rest of the new Member States have lower scores. The lower rate of FDI in some countries may be evidence of a relatively underdeveloped state of competition in the markets for business services overall; however, the situation is comparable to that of the old Member States. Nor is there one single picture when it comes to import penetration. Slovenia has the highest level of imports of professional services in Europe (almost 90% of domestic annual turnover), while the other countries are at or below the average level.

Differences like this underline the conclusion that the level of and trends in competition in professional services might be dependent on the different national legislative frameworks. Several countries, such as Estonia, Lithuania and Poland, have relaxed restrictive rules on professional services, such as lawyers, notaries, accountants, architects and engineers, since their accession to the EU. Other countries, e.g. Cyprus, Bulgaria and Slovakia, are monitoring the situation in these markets. Despite these measures and attempts to open up markets, there is scope for significant improvement of the situation, and the European Commission is enhancing the progress of reform through regular assessments under the Lisbon Strategy for Growth and Jobs ⁽²⁹⁾.

⁽²⁹⁾ The latest country assessments by the European Commission within the Lisbon Strategy for Growth and Jobs may be found at the following website: http://ec.europa.eu/growthandjobs/european-dimension/index_en.htm.

Chapter IV

Capital markets in an enlarged EU

SUMMARY OF MAIN FINDINGS

This chapter examines the role of foreign direct investment and financial development in the catching-up process. Foreign direct investment makes it possible to locate activities where they can be organised most efficiently. Compared to other regions in the world, the EU attracts a higher share of foreign direct investment and in particular the new Member States where foreign direct investment represented 27 % of gross fixed capital formation in 2006. Underlying this increase is the stable investment climate the EU provides.

Besides usually directly stimulating investment, exports and employment, foreign direct investment also makes a decisive contribution to growth via knowledge spill-over in various forms: organisational imitation, tougher quality standards, greater variety of products and increased competition which eliminates inefficient incumbents. It is estimated that a 10 percentage point increase in the foreign direct investment to gross fixed capital formation ratio raises potential growth by 0.2 percentage point.

Not only greenfield investments which imply the creation of new assets, but also acquisitions feared to reduce competition through concentration, are effective in boosting growth as joint ventures between foreign and domestic partners may facilitate knowledge spillovers. FDI in the service sector is often thought to be less promising in this respect because productivity gains are harder to realise. However, to the extent that labour markets are flexible, spillovers in services can also be substantial because of the high labour intensity and employee rotation in that sector. In addition, the development of modern services with a high knowledge content and value added can be stimulated by the shared service centres established by foreign investors.

Foreign direct investment is often blamed for widening income disparity in the host countries. It would seem, though, that regional income disparities are shaped more by differences in labour productivity in services than in manufacturing, which would make the case for a facilitation of the free flow of services in the Internal Market and the associated foreign direct investment. Furthermore, while there might be some temporary concentration of foreign direct

investment across industries and regions, in the long run there does not appear to be a strong correlation between regional production and income concentration in the EU resulting from foreign direct investment.

Foreign direct investment can also lead to activities being shifted from old to new Member States as firms supposedly take advantage of low wages or taxes in these countries. While wage level and tax competition are among the factors influencing the location of foreign firms, the relation is not straightforward. Particularly for services, it would appear to be the skill level rather than wages that is driving offshoring. High corporate taxes have a negative impact on investment decisions, but do not necessarily impede investment as other factors related to market size, availability of resources, technology or business environment are also important. The prospects for relocation are largest in the efficiency-seeking manufacturing sector, but 70% of outward direct investment from the old to the new Member States is in the service sector and of the market-seeking type, thus limiting the scope for losing business. Furthermore, while in some sectors (e.g. food, clothing, publishing, communication equipment, office machinery, motor vehicles) employment in the old Member States is negatively correlated with the rise in employment in the new Member States, in several sectors (e.g. machinery, furniture, medical instruments, chemicals, tobacco) the opposite is true. This leads to the conclusion that where there is relocation, it is most often of benefit to the old Member States, essentially for two reasons. First, it helps maintain competitiveness and can help to maintain jobs. Second, the return on the foreign investment may cushion adverse shocks in the home country through risk-sharing.

A particularly salient aspect of the economic transformation in the new Member States is their rapid financial catching-up in terms of both domestic financial sector development and global financial integration (in particular with the old Member States). The new Member States profited in particular from massive foreign direct investment inflows, which fostered economic restructuring and growth – not least by driving also the expansion of an efficient domestic financial sector. Alongside sound macro policies,

trade openness, and the already achieved initial stage of development, the decisive element that has attracted FDI and other capital inflows (and sets the new Member States apart from other emerging economies) is the coherent set of well-developed and proven institutions provided for by EU-accession.

Financial intermediation in the new Member States is strongly bank-based and, due to the substantial FDI in the financial sector, dominated by foreign-owned banks. While this has caused important know-how spill-overs, it has also led to idiosyncratic stability risks in both home and host countries – especially against the backdrop of the exceptional global financial turbulences that we have been facing since 2007.

Domestic financial development and international financial integration have made a decisive contribution to growth in the new Member States. The large capital inflows relaxed the domestic savings constraint on capital accumulation and allowed for total investment that substantially surpassed savings. In addition, financial integration had indirect beneficial effects on growth through further institutional development and policy discipline. Specifically in the financial sector, the strong involvement of foreign banks helped to make bank restructuring and privatisation a success and rein in political involvement in credit decisions. Indirect effects of global financial integration on growth and economic welfare also result from new opportunities for risk and income diversification and consumption smoothing.

In spite of the numerous benefits of financial development and integration, financial convergence can raise important policy challenges if capital inflows, current account deficits and domestic credit expand too rapidly, leading to an unsustainable boom and subsequent bust. Indeed, some of the new Member States have already violated related speed limits and are now faced with significant adjustment needs and potentially quite protracted growth slowdowns. In addition, the current global financial turbulences add complexity as they have encouraged international investors to take a closer look at the stability risks and vulnerabilities in emerging economies like the new Member States. All this places an additional

large premium on strong domestic policies in the framework of EU-wide coordination that ensure sound fundamentals as the new Member States continue their still long way to full convergence.

In this context, fiscal policy has a particular responsibility, as it can contribute significantly to maintaining macroeconomic and financial stability by compensating for expansionary pressures stemming from a booming private sector. It should in particular avoid procyclicality (often going beyond the *stricto sensu* requirements of the Stability and Growth Pact) and any over-estimation of structural trends in revenues and potential growth in boom phases. In addition, structural policies play a paramount role in improving flexibility in product and labour markets. This is especially relevant for the adjustment capacity of countries that have opted for currency board arrangements or that have already adopted the euro. Moreover, prudential and supervisory measures constitute an important toolkit for policymakers when confronted with episodes of rapid credit growth. Not least the stability risks – in both the home and host countries – associated with the high presence of foreign-owned banks in the new Member States require stronger national and cross-border policies, including enhanced regulatory and supervisory coordination.

In all these policy areas, the EU frameworks (including the Stability and Growth Pact, the Lisbon Agenda, and the euro adoption framework) constitute powerful catalysts for sound domestic policies – as the accession framework did before. It will be up to the new Member States to decide how they make use of these levers for continuing their convergence success story.

1. FOREIGN DIRECT INVESTMENT AND CATCHING-UP

Section 1.1 discusses the direct and the indirect growth-enhancing mechanisms of FDI, including diverging effects of different types of FDI, and examines if they were at work in the EU in the period of enlargement and shortly afterwards. Section 1.2 focuses on the main factors which attract FDI to the Member States, including the impact of enlargement. Section 1.3 moves to one of the most debated implications of FDI in the enlarged EU – the relocation of production and jobs. It examines the magnitude of the relocation across industries and discusses its possible effects. Section 1.4 looks into the sectoral and the regional concentration of FDI and at the interaction with government policies.

FDI would seem to have boosted economic growth in the EU, especially in the new Member States, because of its higher share in total investment. Moreover, several indirect mechanisms enhanced this effect, notably productivity spill-overs to domestic firms.

Foreign firms establish their production units in the EU because of the attractiveness of all the Member States, thanks to enlargement. and the growing role of cross-border production networks (with their synergy effects). The country-to-country disparities in FDI are determined by such factors as market size, geographic location, quality of business environment, labour cost, exchange rate, and taxes.

Both the changing competitive position in the EU and evolving technologies in firms can lead to relocation of production and jobs in some sectors. However, this is not a widespread phenomenon and does not have to be negative for the economies of origin. Relocation helps maintain competitiveness for corporations, whose more skill-based parts of production and ownership are still kept in the mature economies. In addition, it spreads the risk of specialisation and helps to smooth income.

FDI does not seem to increase sectoral concentration of production or regional income disparities (which could, if excessive, be harmful for catching-up) in the long term in the EU. However, some temporary rises are possible. The EU and national regional policies can to some

extent modify the sectoral and regional distribution of FDI in the Member States.

1.1. THE ROLE OF FDI IN ENHANCING THE GROWTH POTENTIAL OF THE HOST ECONOMIES

FDI⁽³⁰⁾ is likely to have both direct and indirect effects on growth. Direct effects mean higher overall investment, production and exports. Indirect effects include higher competitiveness of domestic firms (thanks to spill-overs) and more intensive competition. The impact of FDI in the EU is generally positive, particularly in the new Member States.

The overall growth-enhancing impact of FDI is supported by broad country-to-country empirical comparisons, especially in the advanced catching-up economies, where it complements other growth factors (Borensztein, De Gregorio and Lee, 1998; Yang, 2008). In a more detailed examination, cross-sectoral estimations based on an augmented production function for five old EU Member States plus the US indicate that FDI stocks had a significant and positive effect on growth. As expected, both a direct and an indirect channel (through interaction of FDI with labour) were at work. The estimated impact is sector-specific and may be absent in some sectors (Vu and Noy, 2008).

1.1.1. Direct effects of FDI

FDI appears to play a more important role in total investment in the relatively capital-needy new Member States compared to the capital-rich old Member States and compared to other emerging countries. Moreover, this role was increasing in time, both in absolute terms and compared to the benchmark economies⁽³¹⁾

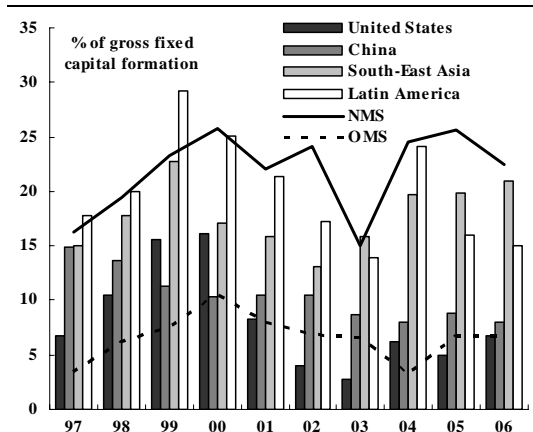
⁽³⁰⁾ Delimiting the minimum share held by a foreign investor in a host country enterprise is the central element of the definition of FDI flows. This a share at which the investor has a control over management. The threshold usually applied for FDI is 10%. According to UNCTAD, the impact of differences in the applied threshold is relatively small, owing to the large proportion of FDI which is directed to majority-owned enterprises.

⁽³¹⁾ The difference of shares of inward FDI in total gross fixed capital formation ratio between the new Member

(Graph IV.1.1). Also for the old Member States, FDI has become more important than for the US since the beginning of the 2000s, and its share in total investment was much more significant than in Japan.

The ratio of FDI to gross fixed capital formation was higher in the new Member States in the whole review period since the late 1990s. The drop in 2003 resulted mainly from the halt in privatisation in the Czech Republic and Slovakia. The enlargement helped the new Member States to raise the ratio to a peak of 27%. The subsequent decline resulted from a domestic investment boom and the inflow of EU funds.

Graph IV.1.1: Importance of inward FDI in host economy investment



Note: Inward FDI in the EU-15 does not include intra-EU-15 FDI. For the NMS, intra-NMS FDI is subtracted for 2004-2006 only, due to data availability, but it was not significant in the preceding years.

Source: UNCTAD, Commission services

Besides boosting overall investment in host economies, FDI usually directly stimulates production and exports. The analysis of export performance of FDI in the new Member States and other Central and Eastern European countries shows that the positive impact has two dimensions: one quantitative (increased production capacity) and the other qualitative (superior technology and managerial knowledge, better information about foreign markets, integration with the supply chain of large parent

corporations). Whereas the quantitative effect can be noted in all transition economies of the region, the qualitative is evident only in the new Member States (Kutan and Vukšić, 2007). The qualitative effect can be measured with the share of intra-industry trade (exchange of goods produced within the same industry) in the new Member States' trade with the old Member states. It is possible to demonstrate a link between the rising intra-industry trade in the new Member States and FDI (Kawecka-Wyrzykowska, 2009).

1.1.2. Indirect effects of FDI

The positive externalities or spill-overs mean that a host economy may benefit not only directly as described above, but also indirectly thanks to FDI having a positive impact on the productivity of domestic firms. The following mechanisms of knowledge spill-overs from FDI can be distinguished: (i) product or organisational (managerial) imitation, (ii) rotation of employees (Fosfuri, Motta and Rønde, 2001), (iii) backward linkages, whereby foreign investors introduce tougher quality requirements for suppliers (which can be backed in part by technology transfer) or scale economies thanks to increased demand, and (iv) forward linkages, which imply a wider variety or higher quality of intermediate products available locally (Kugler, 2006; Blalock and Gertler, 2008)⁽³²⁾. Finally, foreign entrants increase the intensity of competition, especially in sectors otherwise isolated from global competition (non-tradables), thereby eliminating the most inefficient incumbents and forcing the survivors to reduce production costs and innovate.

The existence of international knowledge spill-overs, in which FDI appears to be one of the robust channels, is supported by empirical research (Barrell and Pain, 1999; Baldwin, Braconier and Forslid, 2005; Lee, 2006; Kravtsova, 2008; Smeets, 2008; Smarzynska

States and the average share for a further four catching-up economic areas (China, India, Latin America and South-East Asia) increased from more than 3 percentage points in 1997 to more than 11 percentage points in 2006.

⁽³²⁾ Backward and forward linkages are often analysed jointly as "vertical spill-overs" and contrasted with "horizontal spill-overs" i.e. impact on firms in the same industry.

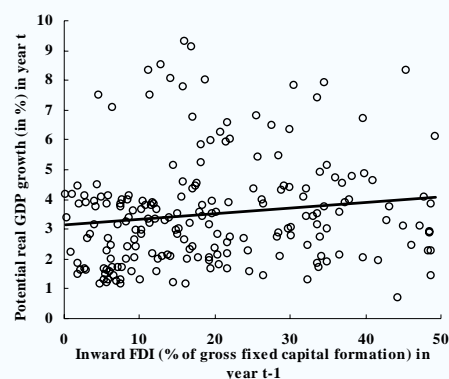
Box IV.1.1: Inward FDI and potential GDP growth in the EU

A simple check based on pooled cross-country data for 1991-2006 (without outliers) points to a positive relationship between potential GDP growth (as estimated by the Commission services based on a production function) and the share of FDI in total investment. A 10 percentage point (which is about $\frac{3}{4}$ of the standard deviation of FDI shares in the sample) higher FDI share appears to be correlated with an almost 0.2 percentage point higher GDP growth the year after (significant at 5%, heteroskedasticity-robust Huber-White “sandwich” estimator; Graph 1).

A non-linearity check (log-linear regression) shows that the impact may be even stronger for initially low FDI ratios (up to about 17% of total investment, which is the median of the considered sample). A stricter estimation which tries to extract purely intra-country effects (through eliminating constant-in-time cross-country differences in growth, international business cycles and inertia of growth)

for the same sample, still detects a positive and statistically significant, though smaller, coefficient of about 0.05. The estimation is a panel regression with fixed country effects (favoured by Hausman test over random effects), year dummies and an AR(1) disturbance.

Graph 1: **Inward FDI and potential GDP growth in the EU**



Source: Commission services

Javorcik, 2008)⁽³³⁾, but there is more disagreement on the magnitude, mechanisms and timing of these effects. It should be noted that short- and long-term effects of FDI can differ. In particular, spill-overs associated with FDI may cause a decrease in the short-term productivity level (costly technological switching and learning) and an increase in the long-term rate of productivity growth of domestic firms (Liu, 2008).

Estimations based on industry-level data for 17 OECD countries suggest that the productivity spill-overs from backward linkages are high in general, and in the new Member States (those who are OECD members) in particular,

compared to more developed OECD countries. Other spill-over effects, similar for both country groups, are also evident (Bitzer, Geishecker and Görg, 2008). Positive spill-overs have also been detected in the largest new Member State, Poland (Kolasa, 2008).

1.1.3. The effects of different types of FDI

Different types of FDI are likely to have different effects. FDI can be classified according to different dimensions, such as motive (market-seeking or export-oriented) or entry mode (joint-venture, acquisition, brownfield or greenfield)⁽³⁴⁾. The entry mode usually implies a

⁽³³⁾ Here some multi-country studies and literature surveys are indicated. Most of the analyses of spill-overs focus on single host countries.

⁽³⁴⁾ Greenfield investment denotes a creation of new assets (e.g. building a factory on a previously empty site). Brownfield involves an acquisition of some assets (e.g. a site with some infrastructure), which needs additional investment to make the project productive. It should be

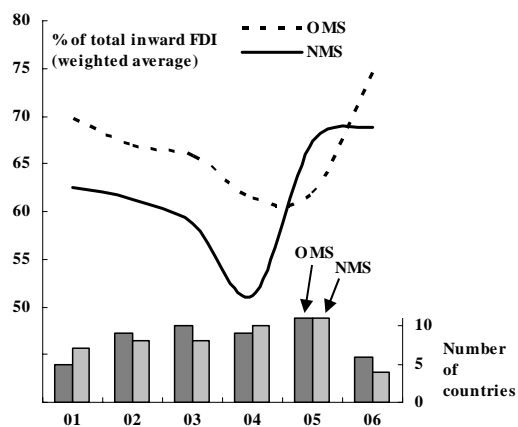
certain type of ownership structure, which is subsequently likely to determine the channel and the degree of spill-overs. Governments often prefer greenfield FDI, as only this type of foreign investment implies an immediate creation of new fixed assets, whereas acquisitions may entail some concentration of assets and a reduction of competition. However, this static way of thinking appears to underestimate dynamic effects, namely spill-overs, competitive pressure improving the efficiency of incumbents and market entry of other investors. FDI other than greenfield also appears to have robust positive effects.

On the one hand, a joint venture allows domestic partners to learn technology and managerial techniques from a foreign partner (horizontal spill-over). It is also less costly for jointly-owned firms to find local suppliers and thus increases the likelihood of local sourcing (vertical spill-overs). On the other hand, the lower the foreign ownership share, i.e. control over joint venture, the lower the probability of state-of-the-art technology input by a foreign investor. All these mechanisms were at work e.g. in Romania (Smarzynska Javorcik and Spatareanu, 2008).

Acquisitions by foreign investors played a crucial role in the new Member States because of the massive privatisation during the economic transition. The experience of Poland, where direct sale dominated over other privatisation methods (Bennett, Estrin and Urga, 2007), shows that privatised firms acquired by foreign investors had higher productivity gains than domestically privatised enterprises and other locally owned firms (private and state-owned). This can be attributed to knowledge transfer rather than better price-cost margins. It appears that foreign greenfields almost immediately positioned themselves at maximum labour productivity, to which privatised firms acquired by foreign investors gradually converged (Modén, Norbäck and Persson, 2008). In the Czech Republic, acquisitions could have a more positive horizontal spill-over effects than greenfields. The same research also shows that (i) positive vertical spill-overs involved only

downstream industries (customers of foreign-owned firms) and (ii) spill-overs materialised only with some lag (Stančík, 2009).

Graph IV.1.2: The role of services in foreign direct investment in the EU



Note: Outliers (negative total FDI, negative FDI in services and FDI in services over 100% of total FDI) are eliminated.

Source: Commission services

Since most services are non-tradable, service FDI is usually market-seeking, and not directly related with trade openness (Kolstad and Villanger, 2008). Knowledge transfer in services may also take place, but the potential to increase productivity in this sector is smaller than in manufacturing due to the higher labour intensity. Consequently, the expected growth boost thanks to FDI in services is smaller than in manufacturing, but still observable (Lejour, Rojas-Romagosa and Verweij, 2008)⁽³⁵⁾. On the other hand, higher labour intensity implies that the rotation of employees becomes more important as a potential spill-over channel. Consequently, if labour markets are flexible, spill-overs in services can be large. Some FDI in services can be also export-oriented, as in the case of regional or even global corporate “shared service centres”. Such centres provide services (e.g. accounting, human resources administration, software maintenance and sometimes research) to subsidiaries owned by a corporation. The new Member States are becoming increasingly popular locations for such centres thanks to their combination of relatively

distinguished from an acquisition of the whole enterprise with all its assets.

⁽³⁵⁾ Simulations using a CGE model WorldScan show that 20-35% higher FDI in services could increase GDP in the EU-25 by 0.4-0.8%.

low wages and a sufficiently high skill level (Lemagnen, 2005; Thuermer, 2006).

A rough estimate of aggregate FDI in services, based on incomplete samples of the old and the new EU Member States compiled by Eurostat, shows that the share of FDI in services in total inward FDI was increasing much faster on average than in the old Member States, and the gap has closed recently (Graph IV.1.2). The high growth of FDI in services in the new Member States took off from a lower starting point and is consistent with a generally increasing role of services in the catching-up economies.

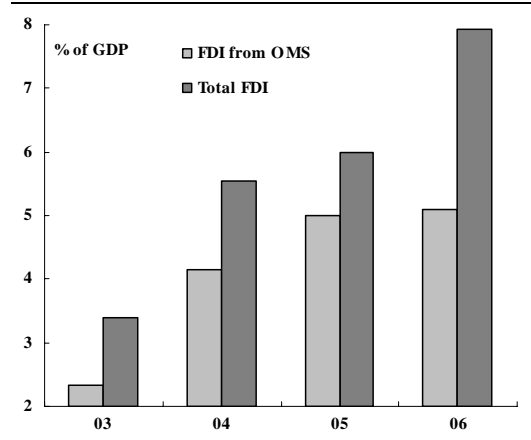
1.2. FACTORS WHICH DRIVE FDI IN THE EU

The development of transport and telecommunication technologies, together with trade and capital flow liberalisation, i.e. the factors which drive globalisation, appear to be the main reasons for the overall increase in FDI worldwide. However, some countries attract relatively more FDI than others. These differences are likely to be shaped by several location factors. They can be put in two groups of international (affecting the whole region of the new Member States) and country-specific effects. The international factors include confidence effects thanks to the EU enlargement and the regional synergy effects. Country-specific factors comprise the economic size and geographical location (central vs. peripheral), macroeconomic factors (such as labour costs and exchange rate changes) and the quality of the business environment.

EU enlargement was expected to increase FDI by boosting the confidence of investors in the stability and improving business environment in the new Member States during the run-up to accession. The announcements of political decisions on EU accession had significant effects on FDI in the new Member States during their candidacy period (Bevan and Estrin, 2004; Clausing and Dorobantu, 2005). The latest enlargement appears to have stimulated FDI in the new Member States, including from outside the old Member States (Graph IV.1.4). The growth in FDI from outside the old Member States includes the dynamically increasing FDI among the new Member States. And the latest

enlargement step and the preparations for it appear to have triggered investment flows. Almost $\frac{3}{4}$ of inward FDI since the beginning of 1990s was attracted by Bulgaria and Romania after the Thessaloniki Summit in 2003, which set the date for entry into the EU (Kalotay, 2008). Not only inflows from the old Member States were on the increase, but also FDI from other countries.

Graph IV.1.3: Inward FDI in the new Member States according to its origin



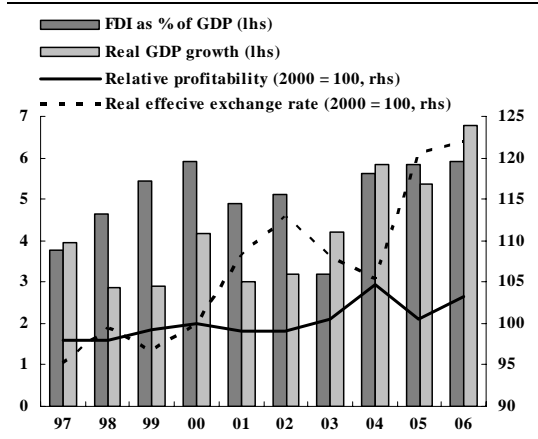
Note: Data for EE, LT and RO for 2006 not available.
Source: Eurostat

There is potential for another wave of increased FDI inflows in the wake of future adoptions of the euro, since exchange-rate uncertainty appears to be a strong deterrent to FDI (Axaroglou and Kouvelis, 2007). The estimated effect of EMU was to boost inward FDI by at least 14% (Petroulas, 2007; European Commission, 2008d). The simulations for the new Member States predicted inward FDI growth of between 18.5% for Poland and 30% for Hungary — consistent with high complementarity between trade and FDI in the region (Brouwer, Paap and Viaene, 2008). The resulting macroeconomic stability appears to be particularly appreciated by export-oriented FDI (Jinjarak, 2007). Again, as for EU enlargement, the endorsement of a credible euro adoption path can already stimulate FDI by enhancing investors' confidence.

Besides the confidence effects, FDI in the new Member States was likely to be stimulated by the synergy effects of regional capital flow and trade liberalisation, which have been mounting since the association agreements. It would seem that if

the neighbours of an open economy attract FDI, its attractiveness increases as it can be integrated into cross-country production and distribution networks (Baltagi, Egger, and Pfaffermayr, 2007; Blonigen et al. 2007). In addition, different kinds of FDI are complementary: there is a correlation between FDI in manufacturing and FDI in producers' services such as finance and transport (Kolstad and Villanger, 2008). These processes have indeed been observed in the new Member States.

Graph IV.1.4: Inward FDI in the new Member States and possible macroeconomic factors of relocation



Note: The two indexes measure performance relative to the rest of 35 industrial countries with double export weights. The FDI ratio is positively correlated with GDP growth (correlation coefficient of 0.39), the exchange rate index (0.36) and the profitability index (0.45).

Source: UNCTAD, Commission services

Moving to country-specific factors of FDI location, economic “gravity models” seem to have good explanatory power, showing that host-country size and broadly defined distance⁽³⁶⁾ to the home country are the main determinants of FDI across the new Member States (Bevan and Estrin, 2004; Demekas et al., 2007; Bellak, Leibrecht and Riedl, 2008).

As implied by the gravity models, an expanding local market (measured by real GDP growth) encourages FDI, especially market-seeking investment. Moreover, profitability (taking into account labour productivity and labour costs) is likely to be positively related with FDI, in particular efficiency-seeking projects. The

⁽³⁶⁾ Including not only transport costs but also cultural distance.

relationship with the exchange rate is ambiguous. On the one hand, investment becomes more expensive when the currency of the host economy appreciates. On the other hand, such appreciation results from the inflow of foreign capital and, in the longer term, through export performance of the foreign-owned firms. Therefore, a positive relationship between the two variables is a positive signal: it points to investors' expectation of further appreciation and future returns offsetting the currency risk. In the new Member States, deteriorating cost-competitiveness (real effective appreciation) was apparently compensated by the quality upgrade of their exports, not least thanks to FDI.

As indicated in Graph IV.1.4, real GDP growth and profitability show the expected links with FDI⁽³⁷⁾, though the impact of profitability is somewhat weaker. This may point to a relatively modest share of efficiency-seeking FDI in the past (see Section 1.3). In addition, the relationship between labour costs and FDI may not be obvious, even for labour-intensive sectors. International comparisons indicate that offshoring of services is influenced more by the skill level and ability of employees to interact with foreign investors than by wages (Bunyaratavej, Hahn and Doh, 2007). As far as the exchange rate is concerned, FDI inflows increased in general against real effective appreciation. Simple vector autoregression, with two lags, shows that FDI contributed to this appreciation.⁽³⁸⁾

The quality of the business environment⁽³⁹⁾ in a host economy appears to be another robust

⁽³⁷⁾ Univariate regressions: outlier-robust (based on iteratively reweighted least squares, which assign higher weights to less deviant observations) and Arellano-Bond (which takes into account possible endogeneity between FDI and an explanatory variable through immediate demand effects) indicate that a 1 percentage point higher real GDP growth in year t could help boost FDI/GDP by $\frac{1}{4}$ percentage point (significant at 10%). For the real effective unit labour cost index (inverted: profitability index) the coefficient was between -0.15 and -0.2 and less significant.

⁽³⁸⁾ FDI/GDP higher by 1 percentage point in year $t-1$ explains a 6 percentage point increase in the real effective exchange rate in year t in the new Member States (significant at 1%).

⁽³⁹⁾ It includes government stability, internal and external conflicts, law and order, ethnic tensions, bureaucratic quality, corruption and democratic accountability.

determinant of FDI globally (Dollar et al., 2006; Bénassy-Quéré et al., 2007; Busse and Hefeker, 2007; Daude and Stein, 2007) and in the new Member States in particular (Fabry and Zeghni, 2006). The quality of the business environment appears to be very relevant, especially for smaller investors, which are essential for a host country as they are likely to stimulate competition and growth. There is empirical evidence that small foreign enterprises are more sensitive to property rights protection and corruption, as they usually have lower bargaining power and often undertake more innovation (Lskavyan and Spatareanu, 2008). Institutional quality seems more important for FDI in services, as they not only produce locally but also sell mostly locally and often cannot switch to exports.

“ease of doing business” ranking. It also appears that FDI inflows correlated positively⁽⁴¹⁾ with the change in the ease of doing business. The reformers attracted more FDI, whereas those who lagged behind received less.

1.3. POSSIBLE RELOCATION OF PRODUCTION CAPACITY AND JOBS

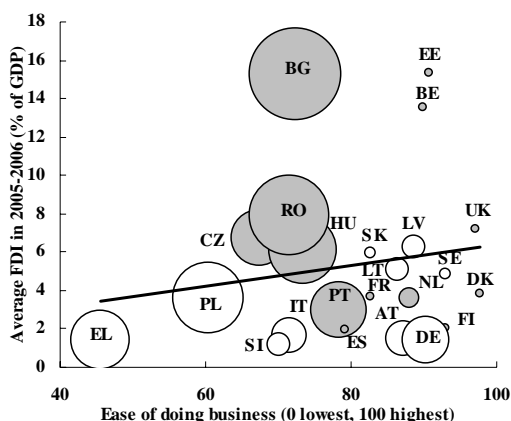
1.3.1. Factors of relocation

FDI not only means the location of new production capacity, but can also involve the relocation of existing capacity abroad. The relocation is influenced not only by the aforementioned location factors (see Section 1.2), but also by additional location aspects at the level of the firm and taxes.

At the firm level, the vulnerability of industrial plants to relocation seems to be positively related to three variables: (i) the intensity of price competition (cost-based competition in standardised goods rather than quality-related in differentiated goods), (ii) the inverse of sunk costs of setting up a plant, and (iii) the distance to corporate headquarters, as suggested by the theory and verified by empirical analyses in Spain (Aláez-Aller and Barneto-Carmona, 2008).

There is a consensus that high corporate taxation has a negative impact on investment decisions (where to invest), but not necessarily on the size of an investment (Becker and Fuest, 2007). It is also suggested in the literature that taxes are likely to have an influence on the composition of FDI. For instance, the geographical composition of inward FDI depends on bilateral tax regulations, making the bilateral corporate effective average tax rates superior to statutory tax rates in explaining FDI flows to the new Member States (Bellak, Leibrecht and Römisch, 2007). The estimated impact of home country taxation (of profit generated abroad) is similar to that of the host country on the probability of location in the host country⁽⁴²⁾ (Barrios et al.,

Graph IV.1.5: The ease of doing business and FDI in the EU Member States



Note: The circles indicate the change in the ease of doing business between the two periods: January 2005 – April 2006 and April 2006 – June 2007. Dark circles indicate positive or no change (for the smallest circles). White circles indicate negative changes. Ireland and Luxembourg excluded as outliers. The World Bank data is missing for Cyprus and Malta.

Source: World Bank (Doing Business rankings 2007 and 2008), UNCTAD, Commission services

Taking the “ease of doing business” ranking⁽⁴⁰⁾ of the World Bank as a measure of potential to attract FDI based on the quality of the business environment, we can see that better institutions indeed coincided with higher FDI (Graph IV.1.5). More strikingly, most of the new Member States and only two old Member States performed above the benchmark levels under the

⁽⁴⁰⁾ The ranking is normalised so that 100 denotes the best global rank and 0 the worst global rank.

⁽⁴¹⁾ The correlation coefficient is 0.5, significant at 2%.

⁽⁴²⁾ In linear estimations, the effect is 0.11 percentage point of probability of location per percentage point lower corporate tax rate for a host country and 0.07 for a home

2008). In addition, declining statutory and effective tax rates in Europe indicate competition for foreign investors (Elschner and Overesch, 2007). Other taxes are also relevant to FDI location decisions. This includes social contributions related to wages (Bellak, Leibrecht and Riedl, 2008).

1.3.2. The scale of relocation in the EU

The scale of relocation in the EU and in specific industries can be measured in different ways. First, the relocation of production capacity results from substitution of investment in some Member States through investment in others by the same corporations. Second, we can look at the relocation of jobs in different locations in the same industries. Third, relocation of a part of a production chain will mean an increasing share of trade in intermediate goods.

Recent firm-level research suggests that German FDI in the new Member States is complementary rather than competing with German FDI in the “old EU periphery” or the “core” in general. On the other hand, poor performance at traditional locations is not generally correlated with investment expansion in the new Member States. There are a few likely reasons for that (Jungnickel et al., 2008): (i) the operation of EU-wide production networks with dispersed value chains, in some industries, (ii) the dominance of market-oriented FDI (in contrast to efficiency-seeking or cost-motivated), in other industries, and (iii) a possible simultaneous relocation to/from the old and the new Member States from/to outside the EU. The comparative advantages of German exports have been reinforced by the development of complementary manufacturing base of German corporations in the new Member States (Box IV.1.2).

A simple check on whether jobs are being relocated, based on a sample of more than 23 000 EU manufacturing firms with more than 200 employees sourced from the Amadeus database, shows that there may be some relocation to the new Member States in selected industries, but it is not a common or prevailing pattern (Table

IV.1.1). Some manufacture of food products and beverages, publishing, printing and reproduction of recorded media, manufacture of office machinery, computers and motor vehicles might have been subject to relocation, especially since enlargement. On the other hand, for many other industries there is no clear correlation. For important industries such as chemicals, medical, precision and optical instruments, other specialised machinery and equipment, furniture and wood product manufacture, there is a positive correlation between employment in the old and the new Member States. The employment in tobacco industry was relocated outside the EU.

Comprehensive evidence from five old Member States (Austria, Finland, Germany, Italy and the Netherlands) of the employment effects of outsourcing services to European and non-European low-wage countries (Falk and Wolfmayr, 2008) shows that: (i) in the non-manufacturing sector, the effect is negative but rather small (decreased employment by 0.2 percentage points per year in 1995-2000)⁽⁴³⁾; (ii) in the manufacturing sector, outsourcing of services is not significant and the outsourcing of intermediate materials also had a relatively small negative impact. Strikingly, the effect is larger for intermediate materials from Asian emerging economies than the new Member States.

The prevalence of a positive relationship between outward FDI and employment in a home country is demonstrated by research focused on Italy, a Member State potentially subject to high relocation because of a relatively high share of labour-intensive production (Scott, 2006) and with a less friendly business environment than most of the other old Member States (Graph IV.1.5). Rather than reducing overall employment, FDI in the new Member States contributed to a skill upgrade in parent companies in Italy (Castellani, Mariotti and Piscitello, 2008).

country corporate tax. In logit estimations, the latter coefficient is higher than the former.

⁽⁴³⁾ Moreover, the type of outsourced services matters: no negative employment effects of business services outsourcing have been identified.

Box IV.1.2: Enlargement and the German economy

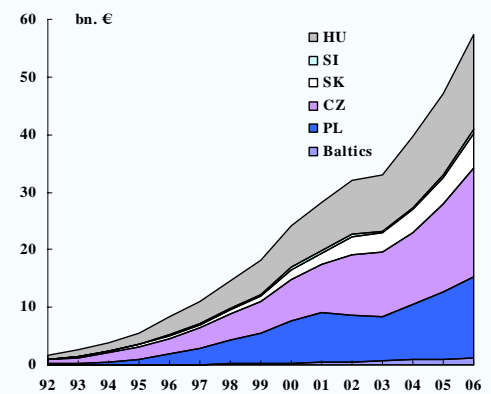
For Germany, enlargement offered on the one hand, access to a rapidly growing market. On the other hand, low wages in the East were perceived as a threat to production in Germany. This box presents some stylised facts on the economic linkages between Germany and its eastern neighbours.

FDI flows between Germany and the NMS are a one-way street. While FDI in Germany is negligible, available statistics currently place the value of German FDI stock in the EU-10 countries at around € 60 bn, about 1% of the German capital stock. The build-up of FDI occurred very rapidly from a low base in the early 1990. Most of the current stock (nearly 2/3) was built up ahead of enlargement proper in 2004 (Graph 1).

FDI stock suggests that investments are becoming gradually more capital-intensive.

One third of German FDI investment in the new Member States went to the Czech Republic; Hungary has a share of 29%, Poland 24%, Slovakia 10%. Slovenia and the Baltic states play practically no role in the investment strategy of German companies. Employment in individual countries is roughly in proportion to investment volumes. However, while investment in the Czech Republic is one third higher than in Poland in financial terms, employment in the two countries is nearly identical. Prima facie this indicates that investment in the Czech Republic is relatively capital intensive. However, this should not be over-interpreted, as it might be driven by a single investment (Volkswagen's purchase of Skoda).

Graph 1: Cumulated German investment in the new Member States

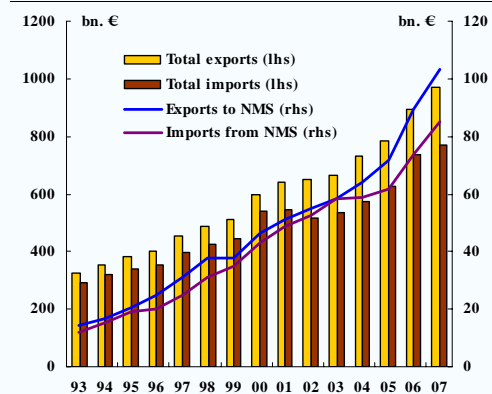


Source: Bundesbank

Actual investment volumes are likely underestimated somewhat, because a statistical change in 2002, which reduced the number of reporting firms by nearly half, led to a break in the series. Consequently, the seeming slowdown of FDI flows in 2002/3 is unlikely to reflect real developments.

Employment by German companies in the NMS rose in parallel from some 100 000 in 1992 to nearly 700 000 in 2001. Since then, only about 100 000 jobs were created. The slowdown in job creation in combination with a continuing rise in

Graph 2: German trade



Source: Comext

The increase in FDI has been paralleled by a significant increase in the growth of bilateral trade flows, which surpassed the growth rate of the already rapidly rising international trade volume. Currently, imports from the new Member States amount to about 10% of total imports of Germany. Just like with the rest of the world, Germany has a sizable and rising trade surplus with the NMS area (Graph 2). However, while globally Germany is a net exporter of medium-high tech goods and relatively weak in high tech and low tech, the specialisation vis-à-vis the new Member States is inverted (Graph 3). Here Germany is a net exporter of high-tech

(Continued on the next page)

Box (continued)

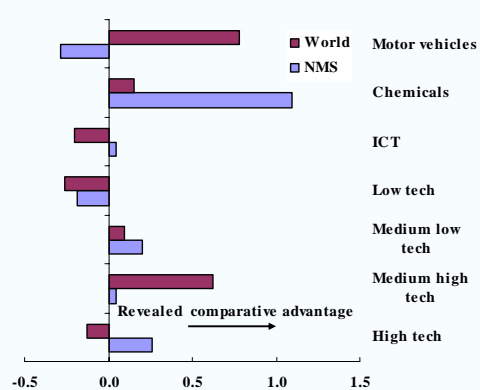
goods, while the comparative advantage in medium-tech goods disappears. Noteworthy here is that in car manufacturing, one of Germany's strongest export sectors, Germany has a substantial trade deficit with Central Europe. However, some of this might reflect transshipments by German mother companies to other countries.

In summary, Germany's economic cooperation with the new Member States is becoming increasingly close. The trade surplus indicates that, in the aggregate, the growth of the central European manufacturing base has not come at the expense of production in Germany. The increasing bilateral trade flows also suggest that in many sectors only parts of the low end of the value added chain have been located in the East, leaving production in Germany to specialise in the high value end. This implies productivity gains and a strengthening of the remaining industrial base in Germany. This is so, in particular, when considering what might have happened had German companies not invested or outsourced in the new Member States. First, German companies might have closed down completely rather than outsourcing a part of production.

Second, production might have located further away with consequently weaker supply links with the mother company.

In short, Germany appears to benefit substantially from the economic developments of its eastern neighbours.

Graph 3: Revealed comparative advantage of Germany



Note: Revealed by comparative advantage calculated as $(X-M)/M$ corrected for total net trade balance.
 Source: OECD (STAN Bilateral Trade Database)

The choice of organisational form for shifting the production capacity abroad can be either international outsourcing or intra-firm offshoring. Outsourcing denotes shifting internal business processes to an external company, domestically or abroad. Offshoring means that a business process done at a company in one country is shifted to the same or another company in another country. The choice between international outsourcing and intra-firm offshoring is determined by information technologies, industry-specific technological factors and country-specific institutional features. In the new Member States, falling trade costs and corruption, along with improvements in the contracting environment in the new Member States, stimulate international outsourcing. On the other hand, low organisational costs of hierarchies (related to the development of information technologies) and the high costs of hold-up in a given industry (related to the scarcity of alternative suppliers)

favour intra-firm offshoring (Marin, 2006). The level and growth of outsourcing and offshoring by the old in the new Member States (as measured by trade in intermediate products) seems to have reached its peak at the moment of enlargement and levelled off since then, compared to declining indicators for other exporting areas (Graph IV.1.6).

To conclude, empirical research shows that it is mostly efficiency-seeking FDI in manufacturing where relocation is most intensive. The existing stock of efficiency-seeking FDI in the new Member States in relation to the overall old Member States' outward FDI is not large (roughly 1/5), so the scale of relocation hitherto could not be high from the perspective of the old Member States. Moreover, a large part of the efficiency-seeking FDI did not involve any relocation – rather the opposite.

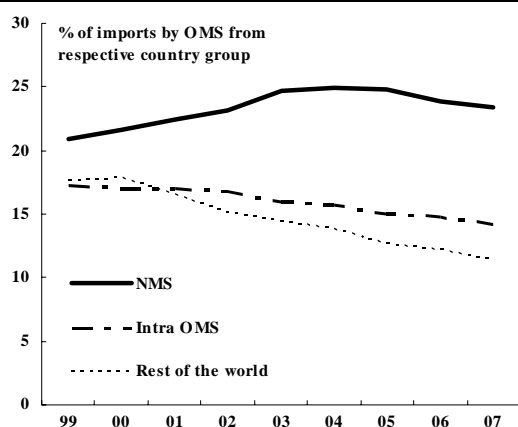
Table IV.1.1: Correlation of average employment in manufacturing enterprises in the old and the new Member States, 1998-2007

Manufacturing industry (NACE 2-digit)	Correlation	Trend in the NMS
Food products and beverages	-0.96 ***	+
Wearing apparel; dressing and dyeing of fur	-0.84 ***	=
Publishing, printing and reproduction of recorded media	-0.79 ***	+
Pulp, paper and paper products	-0.78 ***	=
Radio, television and communication equipment and apparatus	-0.73 **	=
Office machinery and computers	-0.70 **	+
Motor vehicles, trailers and semi-trailers	-0.64 **	+
Recycling	-0.59 *	+
Coke, refined petroleum products and nuclear fuel	-0.22	+
Rubber and plastic products	-0.07	+
Fabricated metal products, except machinery and equipment	0.12	=
Electrical machinery and apparatus n.e.c	0.33	+
Basic metals	0.33	-
Textiles	0.50	-
Tanning and dressing of leather; luggage, handbags, saddlery, harness and footwear	0.50	-
Other non-metallic mineral products	0.61 *	=
Other transport equipment	0.65 **	=
Tobacco products	0.79 ***	-
Wood and of products of wood and cork, except furniture; articles of straw and plaiting materials	0.85 ***	=
Chemicals and chemical products	0.86 ***	=
Medical, precision and optical instruments, watches and clocks	0.90 ***	+
Furniture; manufacturing n.e.c	0.95 ***	+
Machinery and equipment n.e.c	0.95 ***	=

Note: The employment figures have been adjusted for common business cycles: for each year, average employment in an industry was divided by the average employment of all industries. Correlation coefficients significant at *** 1%, ** 5%, * 10%.

Source: Amadeus, Commission services

Graph IV.1.6: Intermediate imports by old Member States from selected country groups



Note: Intermediate goods are defined as parts and accessories of capital goods (including parts and accessories for transport equipment) as classified according to the UN trade statistics Broad Economic Categories.

Source: Commission services

The overall net impact on jobs in investors' economies of origin can be positive because foreign subsidiaries in new Member States are not only highly export-oriented, but also highly

import-dependent (see the discussion on the international production chains in Section 1.3.3 below). Medium-technology industries – such as transport equipment, machinery, chemicals (excluding pharmaceuticals), rubber and plastics products, metal products – have been subject to the highest relocation currently (Rojec and Damijan, 2008). This observation is consistent with the finding that the new Member States are most competitive in medium-technology industries (see Chapter III.1.4).

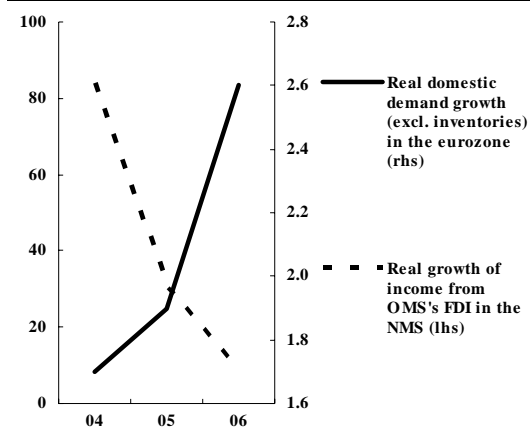
1.3.3. The benefits of relocation for the old Member States

Even if some relocation is taking place, it is likely to be beneficial to the old Member States. Two important benefits are described below: maintaining competitiveness and risk sharing.

The old Member States can retain their competitiveness, despite high wages, because they keep on producing high-technology components of complex final products as well as designing these final goods and developing the

technologies proper. However, the production of final products continues to need labour-intensive ingredients or routine tasks (Robert-Nicoud, 2007). These complementarities can be exploited by outsourcing or offshoring parts of the production chain to the new Member States. The assembly of complex products and the international production chain are managed by large corporations which, through FDI, acquire or establish subsidiaries in both country groups. The share of “vertical FDI” (investment in subsidiaries which provide inputs to their parent firms) is larger than commonly perceived. However, this can be fully observed only with a sufficiently disaggregated product classification. A comprehensive empirical analysis⁽⁴⁴⁾ shows that the closer the production stage is to the final product, the more likely it is for a multinational corporation to own a supplier. This type of “vertical FDI”, which disperses the production of proximate components, does not seem to be well explained by the traditional comparative advantage models (location of low-technology production stages abroad in labour abundant countries) (Alfaro and Charlton, 2007).

Graph IV.1.7: Domestic demand in the old Member States and income from FDI in the new Member States



Note: The time series is determined by data availability.
 Source: Commission services

Relocation mirrors specialisation patterns. If the specialisation risk (see Section 1.4 below) can be “insured” with trade in assets, specifically acquiring ownership of foreign enterprises, the net benefits of specialisation are larger (Helpman

and Razin, 1978; Kalemli-Ozcan, Sørensen and Yosha, 2003).

In 2003-2006, higher domestic demand growth in the old Member States appears to have been accompanied by lower growth in income from FDI (Graph IV.1.7). In the depicted phase of the business cycle, it was apparently not necessary to repatriate profits generated by the high FDI in the new Member States to smooth income. The data is still too limited to make strong judgements, but it is likely that, in the current phase of the cycle with a severe downturn in the mature economies, income from FDI will to some extent compensate for smaller profits in the home economies.

1.4. The sectoral and regional dimensions

On the one hand, FDI is likely to stimulate growth but, on the other, it is blamed for increasing income inequalities in the host economies (Basu and Guariglia, 2007). Since over-specialisation is risky and excessive inequalities are harmful to durable growth, it is worth examining if FDI increased imbalances in any of these two dimensions.

The EU integration process is reducing the role of countries in attracting FDI and making regions more similar. This implies that each region can compete for FDI (Pusterla and Resmini, 2007). Additionally, the EU and the national regional policies influence the relationship between FDI and regional production and income dispersion.

Combining regional and sectoral analysis, the regional income disparities in the old Member States, as determined by differences in labour productivity, seem to be shaped by services rather than manufacturing (Fotopoulos, 2008). This points to the need for an even freer flow of services in the internal market to help speed up FDI in services.

Aggregate data do not indicate that there is a big danger of industrial or regional production and income concentrations in the EU resulting from high FDI in the long term. However, there may be some temporary increases in FDI concentration across industries and regions, as well as clustering within regions. Somewhat

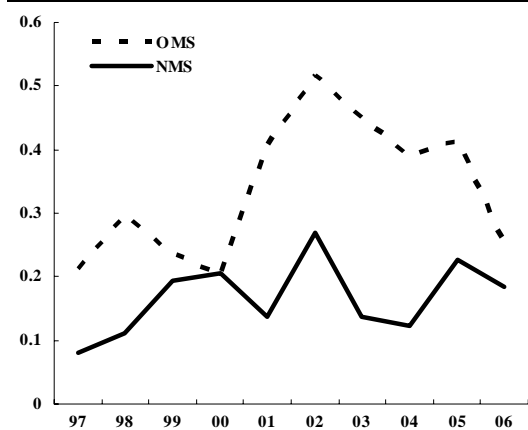
⁽⁴⁴⁾ Covering a global sample of 650 000 subsidiaries of multinational corporations.

higher concentration does not have to be bad for growth as it helps to make best use of agglomeration economies.

1.4.1. The sectoral concentration of FDI

Specialisation gives competitive advantages thanks to economies of scale, at a cost of higher variance of output (Ruffin, 1974). The dominance of a small number of industries can be risky for an economy, as it makes it more susceptible to shocks. If FDI is concentrated in some sectors or industries it can increase such dependence. According to inward FDI data disaggregated by the Eurostat/OECD classification of activities (covering the whole economy, not only manufacturing)⁽⁴⁵⁾, the concentration was lower in the new Member States than in the old ones (Graph IV.1.8).

Graph IV.1.8: The sectoral concentration of inward FDI



Note: Concentration is measured with the Herfindahl-Hirschman index (0 lowest concentration, 1 highest). The index is the sum of squared shares.

Source: Commission services

This is contrary to the expectations that the new Member States might be more susceptible to such concentration because of the smaller size of their economies. Besides, neither the old nor the

new Member States experienced any dramatic increase in concentration after enlargement.

1.4.2. The regional concentration of FDI

The location of FDI inside countries is affected by agglomeration economies. These are the benefits which firms obtain when locating close to each other in large numbers, leading to the creation of clusters of certain industries; those which are capital-intensive lead to scale economies, while those which are labour-intensive lead to increases in wages. It should also be noted that, beyond certain threshold of firm concentration, the agglomeration economies may disappear and negative externalities resulting from congestion can emerge. Agglomeration economies, together with the relevance of past experience for location decisions (investors tend to prefer known countries and regions), contribute to inertia and some persistence of either low or high FDI flows. In the following paragraphs, the short-term experience of FDI location inside some old Member States based on microeconomic studies is summarised. Subsequently, some evidence from the new Member States is presented. Finally, the long-term relationship between FDI and regional dispersion in the two country groups is compared, based on aggregate data.

The risk of escalating disparities between regions in terms of capital-to-labour stock ratio due to FDI and sharply rising regional wages is alleviated by the complementarity of capital and labour flows. The agglomeration forces seem to have attracted both foreign investors and migrants to the same locations in Germany (Buch, Kleinert and Toubal, 2006).

In France, FDI location decisions revealed the following tendencies: (i) industries with high scale economies (computers, car parts, machine tools and office machinery) were subject to the strongest agglomeration effects and (ii) a learning process was taking place in location choice over time: foreign investors from neighbouring countries were moving first to regions close to their origin and then dispersing over the whole host territory (towards the places with higher demand for their goods) (Crozet, Mayer and Mucchielli, 2004).

⁽⁴⁵⁾ In the present analysis, FDI in manufacturing was disaggregated into 15 industries due to possible high variance of FDI in different industries across countries, whereas non-manufacturing FDI was disaggregated in broader sectors (such as agriculture and fishing, mining and quarrying, electricity gas and water, construction, trade and repairs, hotels and restaurants; transport, storage and communication, financial intermediation, real estate, renting and other business activities).

The empirical evidence from the UK is that, while clusters intensify productivity spill-overs from FDI, this only occurs in pre-existing clusters, where domestic firms already have gained some collaborative experience. FDI-generated clusters can also disappear since foreign-owned firms are very mobile (De Propriis and Driffield, 2006).

An analysis of the Italian experience tries to split the agglomeration effect according to two possible channels: (i) the benefits of specialisation and (ii) the benefits of diversification (wider choice of intermediate goods and more intense competition among suppliers in agglomerations). The former were detected, but the latter were not. In addition, FDI turned out to be lower in locations dominated by small enterprises (Bronzini, 2008).

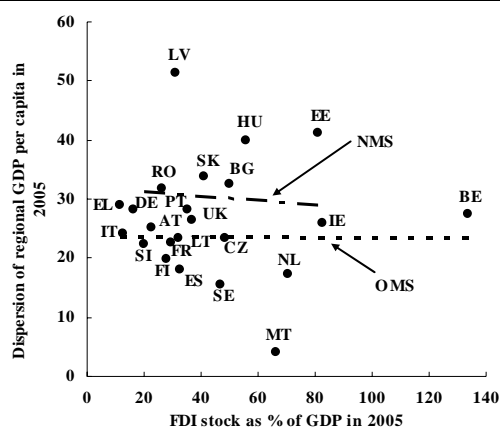
Spanish experience shows that inward FDI can enhance the inertia and path-dependency in regional development due to agglomeration economies. Especially FDI in manufacturing of higher-end complex products, in which integration into large production networks is a necessity, is strongly attracted to regions which already have a high level of manufacturing and R&D activities. On the other hand, cost-oriented FDI in manufacturing of less-processed simpler products, which seem to be less mindful of agglomeration economies, are attracted by high factor endowments (Pelegrín and Bolancé, 2008).

Turning to the new Member States, there is no convincing evidence of an impact of FDI on inter-regional concentration of business activity in the 1990s following the rapid elimination of trade barriers and liberalisation of capital flows in these transition economies (Altomonte, 2007). In the following years, FDI helped create several regional clusters inside regions, including 19 large ones⁽⁴⁶⁾. Nevertheless, the process of regional concentration and redistribution of industry appears to be in an early phase in the

new Member States (geographical concentration close to a random distribution). Overall, the regional concentration in the countries which joined the EU in 2004 looks lower than in mature economies (such as the old Member States or the US). Higher regional concentration than in the old Member States was detected only for new information technologies, biopharmaceuticals and communications equipment (Sölvell, Ketels and Lindqvist, 2008).

The regional dispersion is changing slowly in most of the countries, so we can take an additional look at differences in dispersion across countries and at a long-term indicator of foreign investment penetration such as FDI stock. Consistent with no clear conclusions in the literature, the aggregate data point to the lack of an evident long-term link between the two variables (Graph IV.1.9).

Graph IV.1.9: The FDI stock and regional GDP dispersion in the EU



Note: The dispersion of regional GDP (at NUTS-3 level) is measured by the sum of the population-weighted absolute differences between regional and national GDP per capita, and expressed in % of the national GDP per capita.

Source: UNCTAD, Commission services

1.4.3. The interaction of government policies with the regional effects of FDI

Special zones with corporate income tax reduction and location-specific subsidies appear to be jointly the most popular tool for attracting FDI in the new Member States (Cass, 2007). In this way, authorities may shape the geographic pattern of FDI location and counteract possible excessive concentration, but they also risk distorting competition (especially if this aid is

⁽⁴⁶⁾ Large clusters were defined as those with (i) more than 10 000 employees, (ii) a specific sector in employment in a region accounting for at least twice its share in the total economy and (iii) a particular sector in a region employing more than 3% of total employment in the economy.

vertical, i.e. awarded to selected industries and firms) and preserving regional dependence on transfers; once this artificial advantage expires, simultaneous mass disinvestment may take place.

In the EU, there are two more factors which may interact with the link between FDI and regional discrepancies: the EU cohesion policy and the FDI motives as shaped by the existence of the Single Market. FDI location decisions in the old Member States' periphery seem to have been influenced by cohesion policy. Firm-level data from eight old Member States shows that structural and cohesion funds allocated by the EU to underdeveloped regions contributed to attracting FDI in the 1990s. In addition, EU investors preferred regions with lower wages and per-capita income compared to investors from non-EU countries. The European investors appear to have tended to re-organise their production networks to exploit the opportunities offered by the Single Market (a mix of production costs reduction and an expansion of market access). In contrast, the extra-European investors sought the wealthiest markets as well as locations with skilled workers and advanced technologies (Basile, Castellani and Zanfei, 2008). Hence, it is mainly intra-EU FDI which is expected to contribute to convergence of income per head.

2. FINANCIAL INTEGRATION AND FINANCIAL SECTOR DEVELOPMENT

Financial integration and development have proceeded rapidly in the new Member States. This chapter explores to what extent this has been to the benefit of these countries. It also discusses stability challenges on what is still a long road to full convergence. These challenges have considerably increased with the current global financial turbulences (see Box IV.2.1).

The key conclusions are as follows: Financial integration in the new Member States featured in particular high and growth-enhancing FDI inflows. The comparatively good institutions resulting from EU accession have played a catalytic role in attracting such inflows. FDI has also been strong in the financial sector and has driven its development, leading to a dominance of foreign-owned banks. The latter has caused substantial know-how spillovers but – against the backdrop of the exceptional global financial turbulences that we have been facing since 2007 – it also led to specific stability risks in both the home and host countries. The containment of these risks requires strengthened national and cross-border policies, including enhanced regulatory and supervisory co-operation. In a more general vein, the global financial turbulences have encouraged international investors to scrutinise more thoroughly the stability risks and vulnerabilities associated with financial catching-up. They have thus placed an additional focus on strong domestic policies that help prevent excessive credit growth and current account deficits and ensure sound fundamentals. In this context, the importance of the EU policy frameworks and of EU-wide and international cooperation to support national policies has been amply underscored.

2.1. FINANCIAL SECTOR DEVELOPMENT AND INTEGRATION

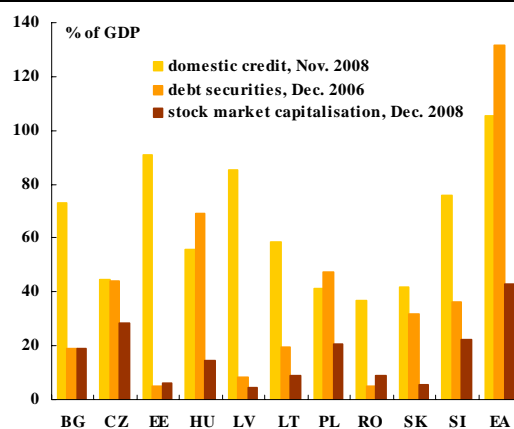
In the financial area, the transition from a centrally planned to a market-based economy and EU-accession implied two related processes. First, there has been substantial growth in domestic financial intermediation. Second, the domestic markets for financial services have become more and more integrated globally, in

particular with the old Member States and the euro area. Both developments have offered a broader spectrum of opportunities for market participants. In the following, domestic financial development will be reviewed first and financial integration second. This will offer the proper ground for examining how these developments were related to accession, and in particular to the European Union's institutional framework, and to what extent expected benefits of financial catching-up have materialized.

2.1.1. Financial sector development

Financial sector development in the new Member States was initiated by a process of bank restructuring and privatisation, i.e. the removal of government control on credit markets, facilitating the access of the corporate sector and households to credit. It also received an important impetus from abroad through FDI (see next section). Overall, with the notable exception of Cyprus and Malta, the catching-up of the financial sector in the new Member States to the euro area level has not been completed yet, despite remarkable progress.

Graph IV.2.1: Structure of financial markets in the Member States, 2008



Note: EA stands for the unweighted average at 12 members. MT and CY: 144 % and 225 % of GDP for domestic credit, and 66 % and 104 % of GDP for debt securities.

Source: ECB and national sources

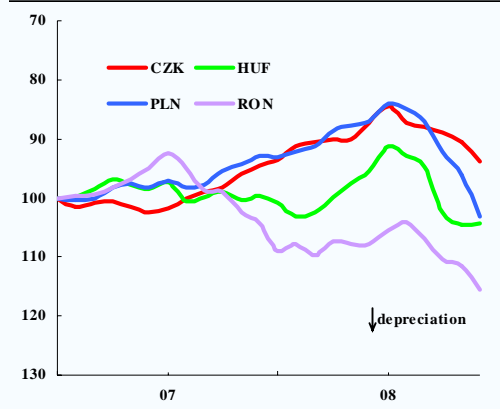
A key characteristic of the new Member States is that financial intermediation is strongly bank-

Box IV.2.1: Impact of the global financial crisis on the new Member States

The current global financial and economic crisis has been spreading to the new Member States through different channels. Prominent among them are a slowdown in trade and investment and potential changes in the funding and business strategy of some financial institutions towards their subsidiaries in the new Member States. Tensions in the different segments of financial markets, especially in money and credit markets, have increased, leading to a deceleration in credit growth. The deterioration in financial market conditions in the new Member States reflects higher risk aversion, against the background of a worsening global economic outlook and financial sector deleveraging. Short-term interest rate spreads have widened substantially, indicating tighter liquidity conditions. Increasing country risk perceptions have resulted in a strong rise in credit default swap (CDS) spreads. Moreover, the exchange rates of floating currencies have weakened following a period of sustained appreciation in some cases (see Graph 1). Countries with home-grown vulnerabilities such as major macro-imbalances appear to be the most affected by the crisis, with spillovers to the real economy being felt accordingly.

In some new Member States this has even led to the need for external assistance. In such cases, the EU stands ready to provide such assistance. Based on Commission proposals, the Council adopted decisions providing medium-term financial assistance to Hungary (up to 6.5 billion EUR) and Latvia (up to 3.1 billion EUR) to overcome short-term external liquidity shortages and support a return to balance-of-payments sustainability in the medium term. Financial support has been linked to the fulfilment of comprehensive economic policy conditions and has been provided in the context of broader

Graph 1: Exchange rate developments in selected new Member States, 2007-2008



Source: Commission services

multilateral financing packages together with the IMF and other international financial institutions (as well as, in the case of Latvia, other Member States).

At the same time, the ceiling for the EU financial assistance under the balance of payments facility was raised from 12 billion to 25 billion EUR to enhance significantly the capacity of the European Union to cope with potential further external financing needs of the Member States outside the euro area. Moreover, to address short-term liquidity needs in euro, the ECB has established repurchase facilities with Hungary and Poland amounting to 5 and 10 billion EUR, respectively. The Swiss National Bank also entered into a CHF-euro swap agreement with the National Bank of Poland to address needs for CHF liquidity in the market (against the background of widespread CHF-denominated lending).

dominated, while direct finance plays only a minor role (Graph IV.2.1).⁽⁴⁷⁾ Nevertheless, a more disaggregated analysis reveals differences among countries. On the one hand, total domestic credit amounts to 2½ to 9½ times the

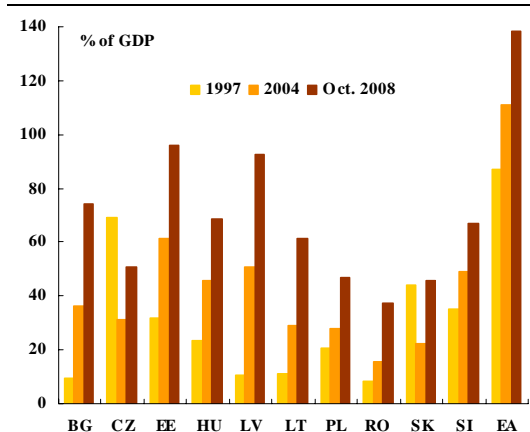
market value of equities in the Baltic countries and Slovakia. On the other hand, in Poland and the Czech Republic bank credits lag slightly behind total stock market capitalisation. However, such data needs to be read cautiously, given that the share of actively traded stocks in the new Member States is relatively low.

The ratio of outstanding credit to GDP has been growing steadily over the last decade in all

⁽⁴⁷⁾ For this reason, this section concentrates on the banking sector. For an analysis of e.g. the insurance sector, see European Financial Integration Report 2008, European Commission, Staff Working Document, 2009.

countries except the Czech Republic and Slovakia where the banking sector was restructured and privatised relatively late (Graph IV.2.2). The speed of bank credit expansion is characterised by two salient features.

Graph IV.2.2: Total bank credit to the non-financial private sector



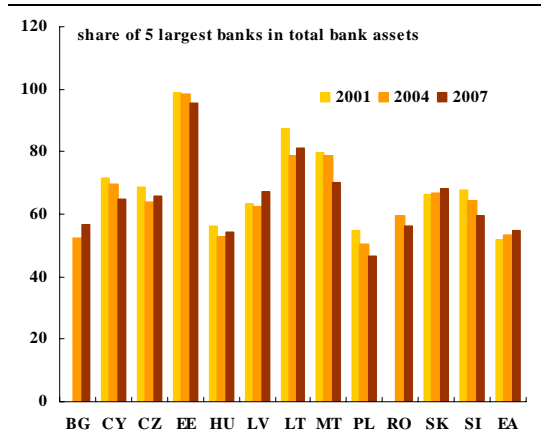
Note: Data for SI is for December 2006. MT and CY already reached euro area levels: 94% and 142% of GDP in 1997, 107% and 165% of GDP in 2004, and 118% and 206% of GDP in 2007.
 Source: IMF

The first refers to the generally high level of concentration among banks (Graph IV.2.3), in particular in Estonia and Lithuania. There is no clear trend after EU-accession. Since then concentration has, for instance, decreased slightly in Poland and Slovenia, but increased in Lithuania and Latvia. Over a longer time horizon, concentration has remained relatively constant. The second distinctive feature of the banking sector in the new Member States concerns its high level of foreign ownership (Graph IV.2.4). In Estonia, Lithuania and Slovakia, the banking system is almost entirely foreign-owned, while participation from abroad in the other new Member States is, on average, four times higher than in the euro area, with Slovenia having the lowest foreign participation.

This second distinctive characteristic presents a strong correlation with the accession process. The prospects in the new Member States attracted foreign investors, especially from the old Member States, well in advance of the date of enlargement. Strong FDI in the financial sector, spurred by the privatisation process, transferred not only capital but also more diversified and innovative financial products and

improved risk management as well as better corporate governance.

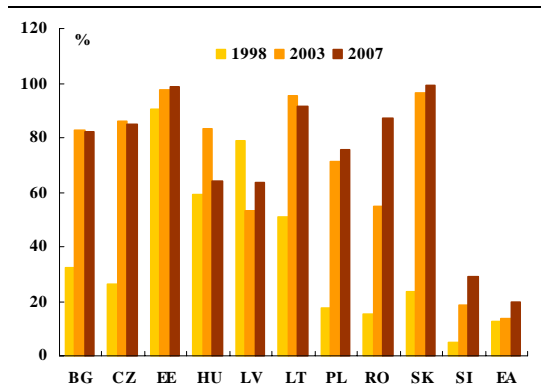
Graph IV.2.3: Concentration of the banking sector in the new Member States, 2001-2007



Note: EA - unweighted average at 12 members.
 Source: ECB

However, recent global financial market turbulences have also highlighted the specific risks associated with this characteristic of financial market development in the new Member States.

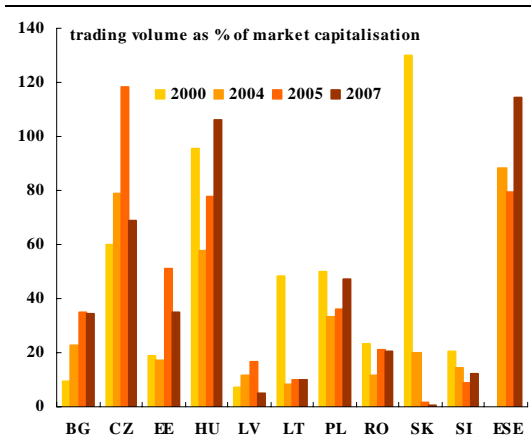
Graph IV.2.4: Foreign ownership in the banking sector in the new Member States



Note: EA - unweighted average at 12 members.
 Source: ECB

Direct finance has developed significantly less than the banking sector. Initially boosted by public offerings as part of the privatisation schemes, stock market liquidity has decreased in many countries (Graph IV.2.5). Poland, Hungary and the Czech Republic appear to be the economies with the most liquid stock markets.

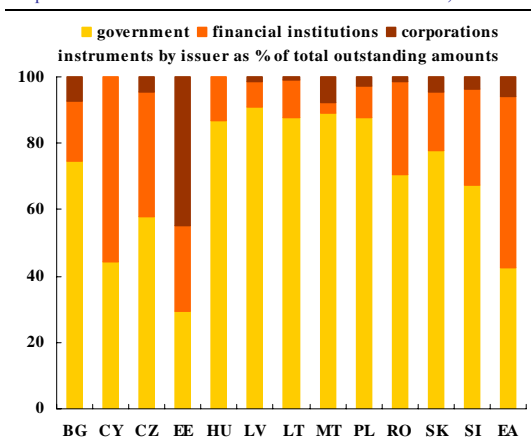
Graph IV.2.5: Stock market liquidity, 2000-2007



Note: ESE - Euronext stock exchange.
Source: EBRD Euronext Year Books

Debt securities markets are dominated by government securities (with the notable exception of Estonia where corporate debt remains nevertheless very low relative to bank credits) and therefore do not represent a genuine means of financing economic activity (Graph IV.2.6). However, the lack of sizeable corporate bond markets should not be overemphasised, as financing from abroad could act as an efficient substitute.

Graph IV.2.6: Structure of the debt securities markets, 2006



Source: ECB

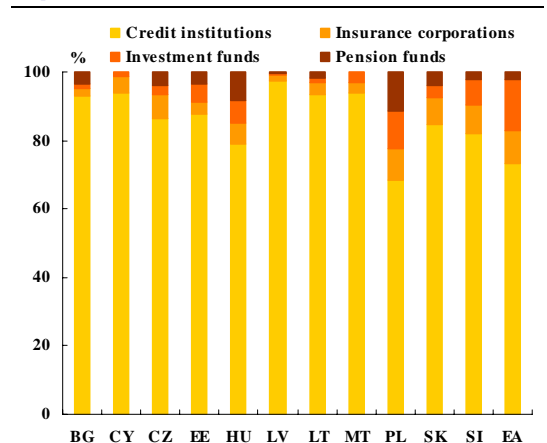
This relative underdevelopment of direct finance in the new Member States means that there are only limited domestic investment opportunities for insurance corporations and other institutional investors (e.g. pension funds). The share of total financial assets managed by them remains low (Graph IV.2.7). Poland and Hungary are an

exception, partly because the introduction of a mandatory funded pension pillar in their economies contributed to the development of non-bank financial intermediaries.

2.1.2. Financial sector integration

Financial sector development in the new Member States was accompanied by their integration in the EU market for financial services and associated with substantial capital inflows. Financial integration can be measured by the convergence of prices for similar financial services and quantitatively, e.g. by cross-border assets and liabilities.

Graph IV.2.7: Distribution of total financial assets, 2007

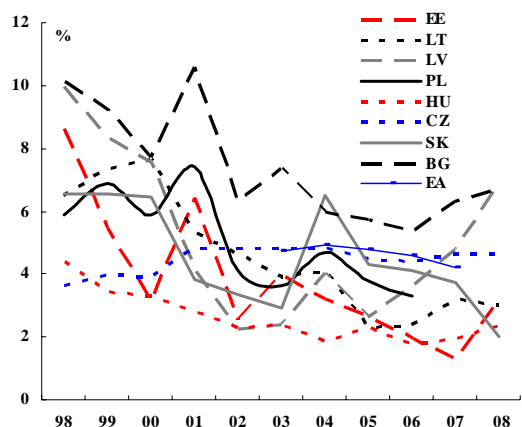


Note: Missing data on RO and CY.
Source: ECB

As regards price convergence, spreads between lending and deposit rates have been lowered towards euro area levels (Graph IV.2.8). This benefit was already reaped in the pre-accession period, when the preparations for joining the EU supported liberalisation and competition. Furthermore, both short-term and long-term interest rates in the new Member States have converged toward the euro area levels and the differences vis-à-vis these levels have become more uniform between countries (Graph IV.2.9).

This price convergence, while advanced by the accession process (including macroeconomic stabilisation), has taken place in a global environment of sustained growth and low inflation that favoured all emerging markets. It has partly been reversed during the recent financial market turbulences.

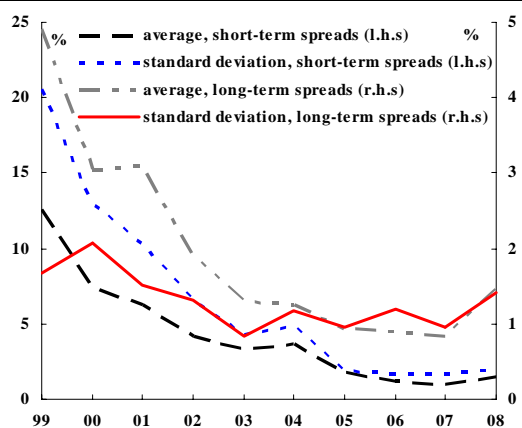
Graph IV.2.8: Lending and deposit rate spreads, 1998-2008



Note: SI, MT, CY - missing observations; RO not represented (37% in 1998 and 6.7% in 2007); data for 2008 as of October.
 Source: IMF

In quantitative terms, the financial integration of the new Member States can be measured by the total sum of external assets and liabilities related to GDP (Lane, 2003). It increased from 76% of GDP at the end of 2000 to 150% of GDP at the end of 2006 (Graph IV.2.10). The average ratio of total foreign assets to GDP increased from 19% in 2000 to 41% in 2006, while the average ratio of total foreign liabilities to GDP rose from 57% in 2000 to 109% in 2006.⁽⁴⁸⁾

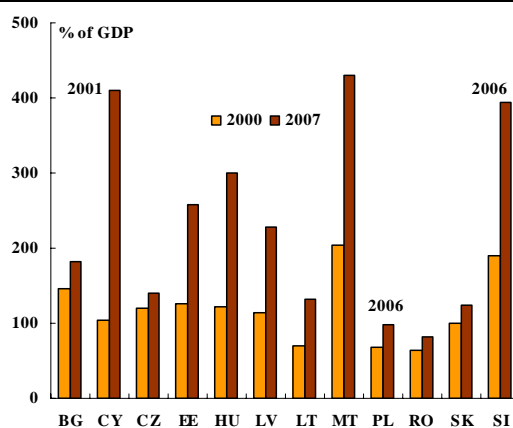
Graph IV.2.9: Convergence of interest rates, 1999-2008



Note: Data for RO as of 2006, for BG as of 2002, for LV and LT as of 2001, for the CZ, MT and SK as of 2000.
 Source: Commission services

The strongest contribution to that increase has come from FDI, which has gained in importance since the mid-90s and reached 8.1% of GDP in 2007 (in terms of annual gross inflows). Portfolio investment has played a much less important role than FDI in the new Member States, given in particular their underdeveloped stock markets. It reached its peak of 4.0% of GDP in 2004, before declining to 0.7% of GDP in 2007 (again gross inflows). Other investment, which includes intra-(financial and non-financial) company loans, has played a significantly increasing role since 2002. It amounted to 11.8% of GDP in 2007, even outweighing FDI.

Graph IV.2.10: External assets and liabilities of the new Member States, 2000-2007



Note: Data without foreign exchange reserves.
 Source: Eurostat

FDI can be considered to be the most important form of capital inflows from at least two angles. First, FDI has enhanced the conditions for the other forms of capital inflows. Second, a substantial part of FDI has been realised in the financial sector, propelling its development, leading to the high degree of foreign ownership, and opening up refinancing possibilities from abroad for foreign-owned banks that contributed to the substantial bank credit expansion⁽⁴⁹⁾. In other words, FDI has been the underpinning for financial development in the new Member States.

⁽⁴⁸⁾ For comparison, the total sum of external assets and liabilities of the euro area stood at 218% of GDP (assets to GDP at 104% and liabilities to GDP at 114%) at the end of 2003.

⁽⁴⁹⁾ According to Eurostat, at the end of 2005, 32.5% of all FDI in the new Member States were concentrated in the financial intermediation sector, 35.5% were realized in manufacturing, while the remaining went into services (other than financial intermediation).

This raises the question why the new Member States, compared with other emerging market economies have been so successful in attracting foreign capital inflows and in particular FDI (see Graph IV.1.1 in chapter 4.1).

2.1.3. Explaining capital flows to the new Member States

The foremost explanatory factor for this success appears to be the institutional framework that preparation for EU-accession and EU-membership brought about. Indeed, data on the quality of institutions reveal substantial differences between the new Member States and other economies at a similar income level.

We refer to three indicators of institutional quality in order to assess the new Member States relative to a comparative set of countries (see Table IV.2.1). The "Ease of Doing Business"-indicator of the World Bank shows that the business environment in the new Member States is getting better, while in the comparative set of countries conditions, which are already substantially worse, do not improve. Economic freedom has also substantially increased over the last ten years in the new Member States, while it has worsened slightly in the comparative set.

Another striking difference is that the institutional convergence among the new Member States, as shown by a decreasing dispersion between the indicator values, coincides with a clear divergence in the comparative set, as shown by a growing dispersion between the indicator values. While the new Member States are becoming more homogeneous, this is not the case for the emerging economies of the comparative set. Confirmation of this result is given by a third indicator, the Corruption Perception Index, which reveals that corruption is becoming less of a problem in the new Member States, while it remains unchanged among the countries of the comparative set.

Improved institutions in view of EU accession and the progressive adoption of the EU 'acquis communautaire' have naturally created a competitive advantage for investments from financial and non-financial companies from old Member States.

Institutional progress has been further substantiated by reforms specifically in the financial sector. For instance, the average score of the EBRD index of banking sector reform reached 3.7 in 2007 on a scale from 1 to 4+. The index measures to what extent banking laws and regulations comply with the Basle committee core principles on banking supervision and whether prudential supervision is effective and financial deepening substantial. Even though the reform in the area of non-bank financial institutions has been slower, marked progress has been made in that area too, with the EBRD indicator reaching the average value of 3.3 in 2007.

Institutional quality is, however, not the only factor that accounts for financial inflows and the rapid development of the financial sector. At least three additional features of the new Member States, most of them also related to EU accession, are likely to have played a major role as well. First, integration into the EU required from the candidate countries sound macroeconomic and structural policies that strengthened their fundamentals and reduced uncertainty. Second, the level of development was sufficiently high for adopting the EU's institutional framework and for investors meeting a qualified labour force. Third, geographical proximity and trade openness attracted foreign investors.

Obviously, higher marginal capital productivity played a core role in attracting foreign capital. However, what needs to be emphasised here is that in the new Member States the expected high profitability was coupled with the right additional incentives, in terms of institutional development, political and economic certainty and human capital. The role that preparation for EU accession and EU membership played in that respect can not be overstated.

2.1.4. What difference did financial development and integration make?

The relationship between domestic financial development and growth, including through the mobilisation of savings for capital and technology investments, is well established theoretically and solidly founded empirically (Levine, 1997).

Table IV.2.1: **Quality of institutions in the new Member States and in other developing countries, 1999-2008**

	New Member States		Other developing economies	
	Unweighted average	Standard deviation	Unweighted average	Standard deviation
Rank in Ease of Doing Business (World Bank)				
2006	44.4	21.1	65.3	33.1
2009	42.8	16.3	68.3	35.3
Index of Economic Freedom (Heritage Foundation)				
1999	60.6	7.9	64.5	6.3
2008	66.9	5.2	63.7	8.1
Corruption Perception Index (Transparency International)				
1999	4.3	1.0	4.4	1.4
2007	5.0	0.9	4.4	1.4

Note: Ease of Doing Business: the lower, the more favourable; adjusted for changes in the sample, so that data cannot only be compared between countries, but also through time; Index of Economic Freedom (between 0 and 100): the higher, the better; Corruption Perception Index (between 0 to 10): the higher, the lower corruption; "Other developing economies": 16 countries with an income level similar to that in the new Member States (Argentina, Botswana, Chile, Costa Rica, Croatia, Lebanon, Malaysia, Mauritius, Mexico, Oman, Panama, Palau, South Africa, Turkey, Uruguay and Venezuela) classified as "upper middle income by the World Bank.

Source: World Bank, Heritage Foundation and Transparency International

In contrast, the connection between global financial integration and growth seems to be less robust. Nevertheless, in the new Member States, the role of foreign capital inflows for high domestic growth seems to be evident. First, they have allowed for total investment that has substantially surpassed savings. Second, developments in the new Member States provide strong support for the argument put forward by Kose et al. (2006) that global financial integration has indirect beneficial effects on growth through institutional development and policy discipline. As outlined in the previous section, advanced institutional development supported by EU accession laid the basis for attracting sizeable capital inflows (in particular FDI), which in turn fostered additional institutional and policy advancement. The goal of attracting further foreign capital and the risk of delocalisation and disinvestment of already established FDI has exerted similar discipline.

Specifically in the financial sector, the strong involvement of foreign banks helped to make bank restructuring and privatization a success, rein in political involvement in credit decisions, and sever incestuous relationships between banks and enterprises – although it may occasionally and temporarily also have come at the cost of more restricted access to credit for small firms.

Indirect benefits of global financial integration on growth and economic welfare also result from new opportunities for portfolio, risk and income diversification and consumption smoothing (van Wincoop 1994; Asdrubali, Sorensen and Yosha, 1996; Garcia-Herrero and Wooldridge, 1997).

Theory predicts that these benefits could be substantial (Lewis 1999). This is plausible in light of the relatively high production specialisation in some of the new Member States. Their increased international financial assets and liabilities suggest that they are on track for profiting from these advantages of financial integration as well. Obviously, EU enlargement brought about increased diversification opportunities also for old Member States, as they are now in a position to deploy their financial means over a wider integrated economic area.

2.2. CHALLENGES OF FINANCIAL INTEGRATION AND DEVELOPMENT

In spite of the numerous benefits of financial development and integration, financial catching-up can raise important policy challenges if capital inflows, current account deficits and domestic credit expand too rapidly, leading to an unsustainable boom and subsequent bust. Indeed, some of the new Member States have already exceeded related speed limits and are now faced with significant adjustment needs and potentially quite protracted growth slowdowns. In addition, the current global financial turbulences add complexity as they have encouraged international investors to take a closer look at stability risks and vulnerabilities in emerging economies like the new Member States. This underscores the importance of strong domestic policies that ensure sound fundamentals as the new Member States continue their way on the long road to full convergence.

2.2.1. Boom mechanics and bust risks

In a typical boom phase, at macroeconomic level, rapid credit growth leads to a surge in consumption and investment and widening current account deficits. At the same time, high capital inflows may lead to substantial real currency appreciation and relatively high inflation to low or negative real interest rates. At microeconomic level, this stimulates domestic borrowers to take on debt – including to a large extent in foreign currency, thereby incurring balance sheet risks (as their income streams and assets are mostly in domestic currency). In addition, in boom phases, banks often tend to adopt a pro-cyclical lending policy, while underestimating lending risks. As a result, they may loosen credit standards, thus increasing credit risks for the banking sector in a downturn.

There are basically two scenarios in which lending booms can play out. First, in a "benign scenario", domestic credit expansion and widening current account deficits correspond mostly to sound domestic investment and consumption based on realistic income expectations. Self-correcting mechanisms kick in sufficiently early to rein in unsound domestic credit loosening and overheating. Adjustments take place smoothly without causing major disruptions for economic growth and financial development.

Second, in a "non-benign" scenario, the lending boom degenerates. Fuelled by negative real interest rates and over-optimistic expectations of companies and households about future profits and income, capital inflows and credit growth surpass equilibrium levels. Rapid credit expansion contributes to buoyant consumption and unproductive investment, leading to real estate and asset price bubbles. In such a scenario, a sudden bust triggered, for instance, by an adverse external shock may induce a disorderly unwinding of imbalances and severe problems in the financial sector. Depending on the exchange rate regime, rapid currency depreciation may ensue (and lead to "lethal" balance sheet mismatches) or a prolonged growth crisis may occur (if a currency peg is maintained and domestic prices and wages lack sufficient flexibility).

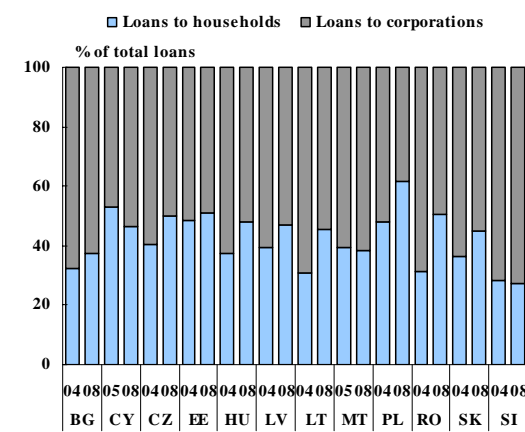
2.2.2. Vulnerability trends

The following subsections elaborate on some of the vulnerability trends observed in the new Member States that have already led to or might suggest further unsustainable booms.

Credit developments

Credit to the private sector has expanded at double-digit rates in the new Member States over the last decade, albeit from low initial levels of financial intermediation. It has been boosted not only by decreasing borrowing costs but also by favourable tax treatments (e.g. for mortgage loans and savings committed to construction).

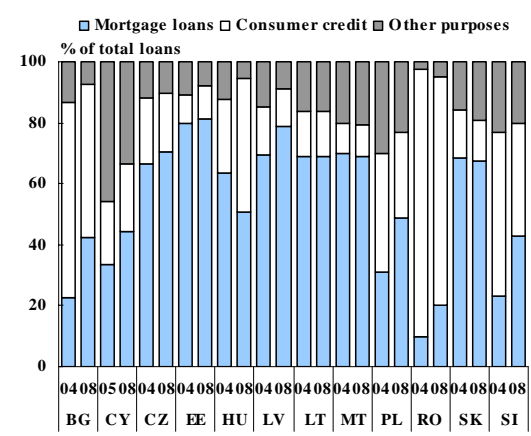
Graph IV.2.11: Loans to private sector in 2004 and 2008



Note: Data on total loans to the private sector refers only to the non-financial private sector
Source: ECB

In most new Member States, credit growth is mainly the outcome of a surge in household loans, which have grown more rapidly than credit to corporations over recent years. Credit to corporations still constitutes the bulk of total credits to the private sector, but, as a consequence, its share has steadily declined. With the exception of Bulgaria, Malta and Slovenia, credit to households in the new Member States exceeded 40% of total outstanding loans to the private sector in 2008 (Graph IV.2.11).

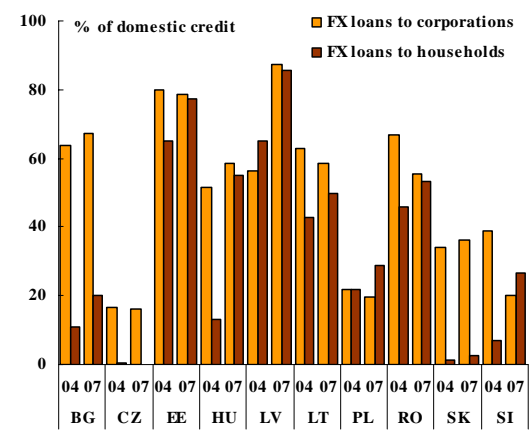
Graph IV.2.12: Loans to households by purpose in 2004 and 2008



Source: ECB

Within credits to households, mortgage loans have seen the most dynamic development in the post-accession period. About half of the new Member States recorded a share of more than 50% of mortgage loans in the total outstanding loans to households at the end of 2008 (Graph IV.2.12). Mortgage loans have been increasing at a particularly fast pace in Bulgaria, Romania and Slovenia. Nevertheless, consumer credit still accounted for a relatively high share in the total credit to households in these countries. Credit for other purposes (e.g. for education) stayed significantly below or around 20% of total loans to households in all countries (except Cyprus).

Graph IV.2.13: Foreign currency denominated loans to households and corporations in 2004 and 2007



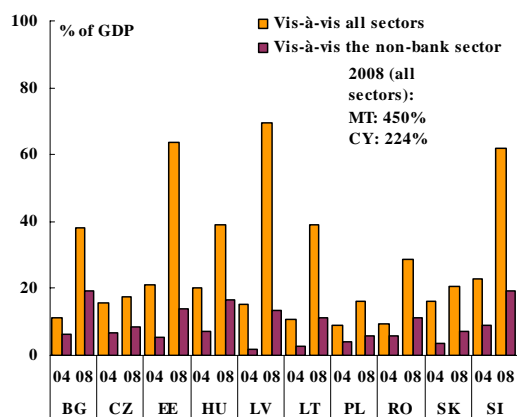
Source: National central banks

One of the distinctive features of credit expansion in the new Member States has been the marked increase in the exposure of

households and non-financial corporations to foreign-currency-denominated loans over recent years (Graph IV.2.13). This has been more pronounced in the new Member States with currency board type arrangements (Baltic countries and Bulgaria).

Among the countries favouring more flexible exchange rate regimes, Romania and Hungary also have a relatively high share of foreign-currency-denominated loans, making in particular households more vulnerable to currency depreciations, as the latter increase the debt burden (measured in domestic currency). In the Czech Republic and Slovakia, foreign currency loans have been mostly channelled towards the corporate sector, while household debt in foreign currency has remained low.

Graph IV.2.14: External loans of BIS reporting banks in 2004 and 2008



Source: BIS

Credit growth in the new Member States has to a large extent been sustained by increasing cross-border lending. The increased competition between the subsidiaries of foreign banks has tended to lower interest margins and led these subsidiaries to fund their lending activities by borrowing from parent companies, often on a short-term basis. They have benefited from relatively easy access to funding from their parent banks. Foreign funding to subsidiaries has limited the effectiveness of domestic prudential and supervisory measures.

In general, cross-border loans have increased significantly in all new Member States during the post-accession period. At the end of 2008, the

Table IV.2.2: Financial soundness indicators for the new Member States in 2004 and 2007

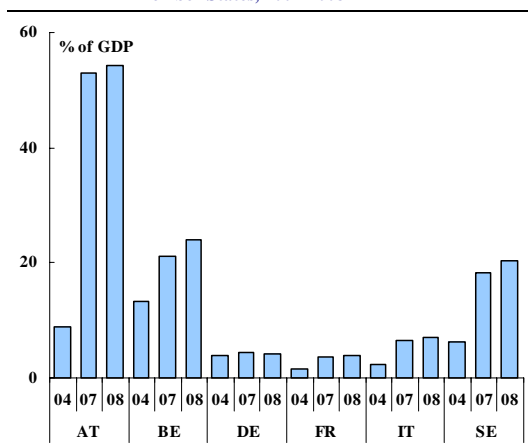
	CA (%) ^{a)}		NPLs (%) ^{b)}		MS (EUR Mio.) ^{c)}		ROA (%) ^{d)}		ROE (%) ^{e)}		LQ (%) ^{f)}	
	2004	2007	2004	2007	2004	2007	2004	2007	2004	2007	2004	2007
BG	16.1	13.9	2.0	2.1	0.6	1.0	2.1	2.4	19.6	24.8	30.1	28.2
CY	11.4	12.4	11.7	7.1	4.4	8.1	0.2	0.8	4.4	14.1	-	29.5
CZ	12.6	11.5	4.1	2.6	2.2	3.5	1.3	1.3	23.3	24.5	33.6	28.6
EE	13.4	14.8	0.3	0.5	1.9	3.3	2.1	2.6	20.0	30.0	22.3	17.6
HU	12.4	10.8	2.7	2.4	1.9	2.6	2.0	1.4	25.3	18.1	21.1	16.0
LT	12.4	10.9	2.2	1.0	1.2	2.3	1.3	2.0	13.5	27.2	28.3	21.9
LV	11.7	11.1	1.1	0.4	1.2	2.4	1.7	2.0	21.4	24.2	33.7	23.9
MT	21.4	23.2	6.5	1.8	6.2	10.1	1.3	1.0	13.2	10.7	24.3	21.8
PL	15.4	11.8	9.2	3.1	0.9	1.4	1.4	1.8	17.1	23.7	26.2	21.9
RO	20.6	13.8	8.1	9.7	0.5	1.1	2.5	1.3	19.3	11.5	63.6	52.0
SK	18.7	12.4	2.6	2.5	1.6	2.5	1.2	1.1	11.9	16.6	13.3	36.5
SI	11.8	11.8	3.0	2.5	2.1	3.6	1.1	1.3	12.5	15.1	88.6	84.8

Note: CA - capital adequacy; NPLs - non-performing loans; MS - management soundness; ROA - return on assets; ROE - return on equity; LQ - liquidity; a) CY: 2005; SI: 2006; b) CY, SI: 2006; RO includes substandard, doubtful and loss loans; c) own calculations; d) CY: 2005; SI: 2006, before extraordinary items and taxes; EE: before tax; e) CY: 2005; SI: 2006, before extraordinary items and taxes; SK - without branches; f) CY and SI for 2005 (for SI, average short-term assets to average short-term liabilities); LV, RO and SK for 2006 (for SK, liquid assets include government bonds in holdings-to-maturity portfolio); EE: March 2007; CZ and PL: September 2007.

Source: IMF, ECB, National central banks and own calculations

Baltic countries and Slovenia recorded the highest GDP share of external loans vis-à-vis all sectors (bank and non-bank), while three of the Visegrád countries (Slovakia, Poland and the Czech Republic) had the lowest levels (Graph IV.2.14). Data on cross-border lending to the non-banking sector as a percentage of GDP highlights the fact that the corporate sector in the new Member States has attracted a relatively small fraction of cross-border loans. Cross-border lending to the non-banking sector expanded most rapidly in the Baltic countries, Bulgaria, Cyprus, Slovakia and Slovenia between 2004 and 2008.

Graph IV.2.15: Claims of selected old Member States on new Member States, 2004-2008



Source: BIS

Mirroring the importance of cross-border lending, the exposure of some old Member States

to financial developments in the new Member States has increased over recent years. One of the related indicators - the foreign claims of the BIS reporting banks (e.g. from Austria, Germany, Sweden, Italy) on the new Member States - have picked up significantly between 2004 and 2008 (Graph IV.2.15). Austria, Germany, France and Italy have higher exposures vis-à-vis the Visegrád countries and Romania while the Swedish banking sector may be vulnerable to developments in the Baltic countries.

Banking sector trends

These credit trends and the dependence on foreign, often short-term financing from parent banks could have major implications for the financial soundness of the banking sector.

Standard financial soundness indicators need to be read with extreme caution, as they are lagging or coincident indicators and are only available with considerable delay. Looking ahead, a significant deterioration in connection with the on-going global and regional economic slowdown cannot be excluded. The crucial question remains then to what extent parent banks will change their funding policies vis-à-vis their subsidiaries in the new Member States, leading to tighter credit conditions. This question also underscores the importance of cross-border policy co-operation, including home-host supervisory cooperation.

In a nutshell, available financial soundness indicators suggest the following trends (Table IV.2.2). Capital adequacy (regulatory capital to risk-weighted assets) declined in all new Member States except for Cyprus, Estonia and Malta between 2004 and 2007, but still remained above the regulatory threshold of 8%. Asset quality improved as the ratio of non-performing loans to total loans decreased in all new Member States except for Bulgaria, Estonia and Romania. The ratio of total assets to the number of employees, which is a good proxy for management soundness in the banking sector, improved between 2004 and 2007, but the amount of assets managed by one bank employee is still much lower than in the euro area.

Table IV.2.3: **Fitch approach on banking system soundness for the new Member States in 2005 and 2008**

	2005			2008		
	MPI 1	MPI 2	MPI 3	MPI 1	MPI 2	MPI 3
"B"	-	EE	-	-	CZ	-
"C"	CZ, MT, SI	-	-	-	CY, MT, PL, SI	SK
"D"	CY, PL, RO, SK	BG, LT, LV	HU	HU	BG, EE, LT, LV	RO

Note: Intrinsic bank system risks range from A (very high quality) to E (very low quality), with all new Member States fitting in "B", "C" or "D"; MPI (macro-prudential indicator) indicates the vulnerability of the banking system to adverse macroeconomic shocks on a scale from 1 (low) to 3 (high).

Source: Fitch Ratings

Return on assets improved or maintained the same level between 2004 and 2007 (except in Hungary, Malta and Romania). Return on equity remained at healthy levels in all new Member States, but displayed a declining pattern in Hungary, Malta and Romania over the same period. The liquidity ratio (liquid assets to total assets), which indicates the ability of the banking sector to withstand shocks to cash flows, followed a declining trend in all new Member States except Slovakia (Table IV.2.2).

This picture can be complemented by looking at the intrinsic systemic risk and the vulnerability of the banking sector to macroeconomic shocks, using other approaches, e.g. the Fitch approach for analysing bank soundness.

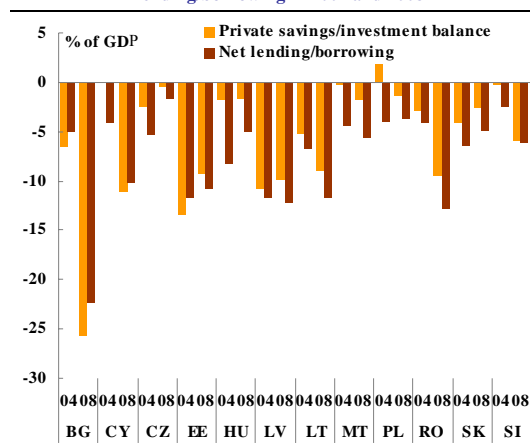
According to this approach, six new Member States (Bulgaria, Estonia, Hungary, Lithuania, Latvia and Romania) have a low strength of the banking system as of October 2008, as the majority of banking system assets are with low-

rated credit institutions (see Table IV.2.3). Cyprus, Malta, Poland, Slovakia and Slovenia have a moderately strong banking system, while the Czech Republic would appear to be the only country, which currently has a high banking sector strength. The macro-prudential risks have widened or remained constant for almost all new Member States in 2008 compared to 2005.

Current account deficits

One specific macroeconomic risk that is often highlighted, are the current account deficits of the new Member States, or more precisely their net borrowing from abroad. Indeed, over recent years, buoyant economic growth and credit expansion have often been associated with increasing net borrowing, raising concerns about its sustainability.

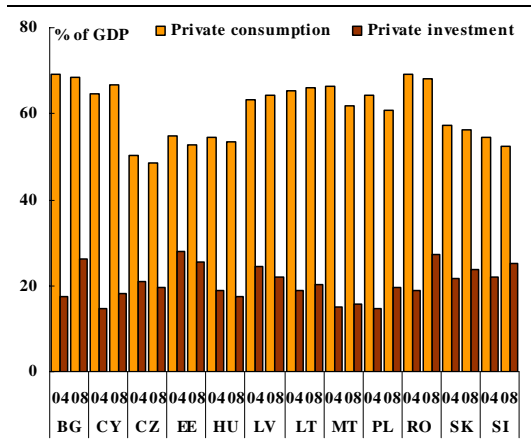
Graph IV.2.16: **Private savings/investment balance and net lending/borrowing in 2004 and 2008**



Source: Commission services

Between 2004 and 2008, these increases were mostly or at least partly the result of deteriorating savings-investment balances in the private sector (Graph IV.2.16), reflecting a shortage of domestic private savings compared to private investment. This may be less of a concern as long as it is the result of investments that enhance the economy's international competitiveness and as long as the net borrowing unfolds through stable channels, in particular FDI.

Graph IV.2.17: Private consumption and private investment in 2004 and 2008



Source: Commission services

Except for the Czech Republic, Estonia, Hungary and Latvia private investment (as % of GDP) increased in all new Member States in 2008 compared to 2004. In 2008, private investment exceeded 25% of GDP in Bulgaria, Estonia, Romania and Slovenia (Graph IV.2.17). On the other hand, private consumption (as % of GDP) decreased in all new Member States, except for Cyprus, Latvia and Lithuania in 2008 compared to 2004. This, however, does not automatically imply that all private investment was productive. On the contrary, it has in some cases, for instance, caused an unsustainable housing boom.

2.2.3. Policy responses to current and potential challenges

Against the backdrop of these vulnerability trends, the global financial turbulences have turned the spotlight on the stability risks and vulnerabilities associated with the financial catching-up in emerging markets. They have thus underscored the importance of strong domestic policies that help prevent excessive credit growth and current account deficits and ensure sound fundamentals.

The available economic policies are different across new Member States. Countries favouring currency boards/hard pegs or countries that have already adopted the euro can no longer use monetary or exchange rate policy to cope with rapid credit expansion. Moreover, in countries with a high degree of *de facto* euroisation, monetary policy transmission becomes less

efficient, due to the limited capacity to influence lending and retail rates through a change in policy rates. The new Member States with more flexible exchange rates are in principle better equipped to counteract the increase in foreign-currency-denominated loans as well as the tendency to borrow directly from abroad. By increasing exchange rate flexibility, narrowing interest rate differentials, and implementing appropriate supervisory measures, they could help reduce the incentives for foreign-currency-denominated bank lending.

In all new Member States, fiscal policy can significantly contribute to maintaining macroeconomic and financial stability by counteracting expansionary pressures stemming from a booming private sector. Fiscal policy should in particular aim to avoid pro-cyclicality in the boom phase, potentially going beyond the *stricto sensu* requirements of the Stability and Growth Pact. It should also avoid overestimating structural trends in revenues or potential growth. Prudence is also needed with policies that stimulate certain types of loans – such as the tax deductibility of mortgage interest payments, which could contribute to a housing boom.

Structural policies that improve product and labour market flexibility play a paramount role for resource allocation and for smooth adjustment after a boom phase. This is particularly relevant for countries that opted for currency boards/hard pegs as is currently demonstrated in the Baltic countries.

Prudential and supervisory measures constitute an important toolkit for policymakers when confronted with rapid credit growth. At the same time, prudential measures can contain the deterioration of asset quality and keep potential systemic risks under control. Specific measures include: higher capital requirements; tighter collateral needs and eligibility for certain types of loans (e.g. foreign-exchange-denominated and mortgage loans); stricter rules on credit concentration (e.g. limits against large exposures to a single borrower); closer monitoring and assessment of loan procedures; and more frequent on-site inspections targeting credit institutions of systemic importance.

In addition, the exceptional and extraordinary global financial turbulences that we have been facing since 2007 have led to specific stability risks – in both the home and host countries – associated with the high presence of foreign-owned banks in the new Member States. The containment of these risks requires strengthened national and cross-border policies, including enhanced home-host supervisory co-operation.

For the host supervisors in the new Member States, an enhanced information exchange on the financial performance of parent banks is of major relevance due to the fact that foreign subsidiaries are players of systemic importance in their banking sectors, while being almost immaterial from the perspective of some parent groups. However, as several parent banks in some of the old EU Member States (i.e. Sweden, Austria, Italy) are increasingly exposed to the new Member States as a whole, an improved exchange of information becomes of utmost importance for home country supervisors as well. More generally, recent events have amply demonstrated the importance of EU-wide and international cooperation for supporting national policies for macroeconomic and financial sector stability.

In all these policy areas, the relevant EU frameworks (including the Stability and Growth Pact and the Lisbon Agenda) constitute major catalysts for sound domestic policies – as the accession framework did before. It is up to the new Member States to decide to what extent they use these levers for continuing their convergence success story.

Chapter V

The free movement of labour in an enlarged
EU

SUMMARY OF MAIN FINDINGS

A major uncertainty surrounding the May 2004 EU enlargement process was the effect it would have on East-West migration flows, in terms of the actual numbers moving across borders and of the economic impact of those flows on the sending and receiving EU Member States. Indeed, the free movement of workers constituted the principal change in economic integration after accession, as barriers to trade, FDI and other capital movements had already been largely removed in the run-up to enlargement.

The sizeable income differentials which existed in the pre-enlargement period sparked concerns that there could be a massive surge of workers from poorer central and eastern European countries flooding into the labour markets of the old Member States and impacting negatively on the wages and employment prospects of local workers. These fears led to many old Member States imposing temporary restrictions on the flow of new Member States' workers into their countries, with just three Member States (the UK, Ireland and Sweden) fully opening their labour markets in May 2004. In the new Member States, however, the predominant perception was initially that the availability of "surplus" labour should ensure that they gained from declines in unemployment and from an influx of emigrants' remittances, with the migrants themselves benefitting strongly either as a result of moving out of unemployment or from finding a better remunerated job; only more recently, with tightening labour markets, emerging skill shortages and associated inflationary pressures, have concerns grown that the outflow of workers might be accentuating labour market imbalances and hampering growth prospects.

Against this backdrop, this chapter examines the reality regarding intra-EU cross-border mobility flows over recent years and assesses whether the initial economic predictions have been confirmed or confounded by actual events. The first section sets the stage for the analysis documenting the broad improvement in labour market patterns in the enlarged EU over the period 2004-2007. Indeed, by 2007 unemployment in the old Member States had fallen to its lowest level in many decades, with both cyclical and structural factors contributing to the favourable developments; in the new Member States, the

situation had changed from one of jobless growth to one characterised by predominantly tight labour markets. The economic slowdown since 2008 is, however, affecting the labour market with unemployment again on the rise in many new Member States.

Section 2 then turns to the impact of opening the borders and the mobility of workers. It first reviews the transitional arrangements for the free movement of workers that have been put in place in Member States. It then presents the available evidence on the extent of intra-EU mobility after 2004, identifies the main receiving and sending countries, and sketches the characteristics of the movers and the various types of mobility flows that can be distinguished. Based on this descriptive evidence, the section then proceeds to assess the economic impact of the mobility flows following enlargement for both the sending and receiving countries. It finds that migration-induced re-allocation of labour resources across countries following the 2004 EU enlargement process has already brought sizeable economic benefits for the enlarged EU. Moreover, in line with other studies and the recent Communication from the European Commission on the impact of the free movement of workers in the context of EU enlargement, it can be concluded that post-enlargement intra-EU mobility flows have not led - and are unlikely to lead - to serious labour market disturbances, with respect to both real wages and unemployment trends.

1. CHANGING LABOUR MARKET PATTERNS IN THE ENLARGED EUROPEAN UNION

Before the global financial crisis started to hit employment, the overall performance of EU labour markets had improved significantly since 2003. Aided by stronger economic activity, employment creation picked up significantly from the modest rates recorded in the years that followed the 2001 slowdown. Between 2004 and 2007, net job creation in the EU-27 amounted to 12.2 million jobs, compared to 2.2 million new jobs over the period 2001-2004, and in 2007, the employment rate reached 65.4%. The increase in the employment rate, albeit from significantly lower levels than in the old Member States, was particularly pronounced in the new Member States, where it rose from 55.9% in 2004 to 59.8% in 2007, but the old Member States recorded an increase in the employment rate over this period as well, by 2.2 percentage points to 67% in 2007. This broad based improvement was until recently also reflected in the development of unemployment rates (Graph V.1.1). In 2007, the EU-27 unemployment rate dropped to 7.2%, the lowest level for many decades, due in particular to significantly lower unemployment in the new Member States.

The following sections of this chapter look into these developments in somewhat more detail. It starts with a brief review of labour market trends in the old Member States, before taking a closer look at the improved labour market situation in the new Member States. This sets the stage for an analysis of worker mobility flows in the enlarged EU in the second part of this chapter.

1.1. BETTER LABOUR MARKET PERFORMANCE IN THE OLD MEMBER STATES

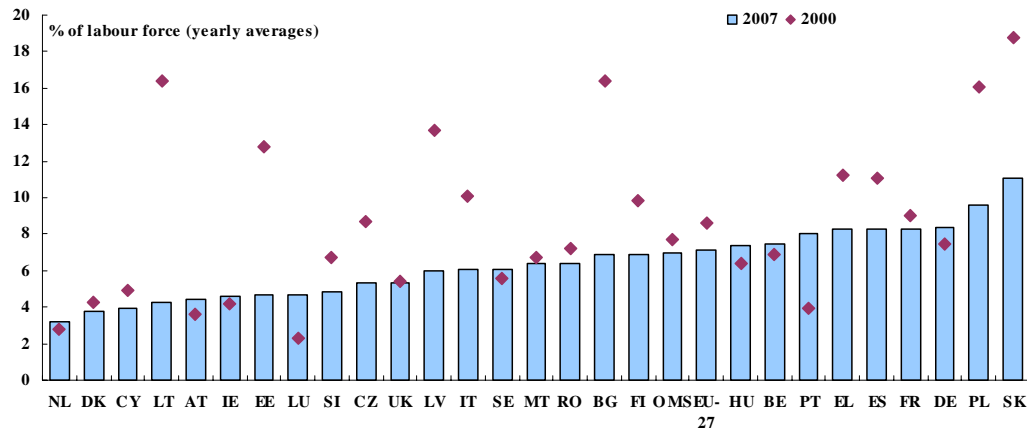
By the time eight Eastern European countries and two Southern European countries joined the EU in May 2004, significant changes had already been occurring in the labour markets of the old Member States since the mid-1990s. After having reached a peak in 1994, the unemployment rate started to move downwards and had, by July 2007, fallen to 6.8% (7.3% for the euro area), the lowest level for many decades.

Remarkably, the fall in the unemployment rate was associated with an increase in both the employment and the participation rates (Graph V.1.2). Employment growth was particularly buoyant, owing to an increase in the job content of growth. Accordingly, from 1995 to 2007 employment and participation rates in the old Member States rose respectively by about 7 and 5 percentage points, to 67% and 72%. While broadly-based, female and the older workers were the most dynamic components, with increases in employment rates of more than 10 percentage points. Although these improvements partly reflected long-term changes in socio-economic behaviour (e.g. a different attitude to female employment and participation) and stronger growth playing a role as well, they are also indicative of structural reform efforts coupled with continued wage moderation having started to pay-off.

The perception that labour market problems could be cured by people leaving the labour force led to easier access to early retirement and other welfare benefits in the 1980s. Transfers from people working to those out of the labour force distorted the balance between social assistance (i.e. assistance to those at a high risk of poverty and social exclusion) and social security (unemployment and welfare-related benefits), blurring their relative roles. But as governments became more aware of the weaknesses of the "lump of labour fallacy", they increasingly made efforts to develop activation policies explicitly designed to influence job-search and strengthen the incentive structure of the tax and benefit systems.

The introduction of more flexible working arrangements, mainly achieved by easing access to part-time and/or temporary work, has been another main component of labour market reforms, especially in the euro area. However, reforms of employment protection legislation have rarely addressed the excessive rigidity of provisions for regular contracts and have mainly been aimed at introducing flexibility 'at the margin'. Partial labour market reforms have been paying off in terms of higher employment growth via easier access to work for groups with

Graph V.1.1: Harmonised unemployment rates in the EU, 2000 and 2007



Source: Eurostat (Labour Force Survey)

low labour market attachment, according to recent research by the Directorate General Economic and Financial Affairs⁽⁵⁰⁾. Even so, piecemeal reforms have increased the duality of the labour market with a growing share of workers ending up in precarious jobs with limited opportunity to progress to more stable employment and better pay⁽⁵¹⁾. Thus, despite having until recently gone hand-in-hand with strong employment growth, increased labour market segmentation has contributed to growing job instability and rising wage differentials.

Consequently, in its Communication on flexicurity, the Commission (2007f) stressed the importance of labour market reforms shifting the focus from security on the job to security of being in employment, backed with effective insurance tools against the risk of job loss. These reforms would enable workers to move smoothly from declining to expanding activities, thus easing tensions in the adjustment process, while

ensuring adequate income support and responding to the fears and insecurities of European citizens.

1.2. LABOUR MARKETS IN THE NEW MEMBER STATES

Jobless growth initially

At the early stages of the transition to market economies, over-employment in the state sector and labour hoarding were common, which gave rise to high levels of participation and high levels of disguised unemployment, low productivity and low wages. Adjustment requirements were immense when the market was opened to competitive pressures and extensive restructuring of the economies started (e.g. Boeri, 2000 and Svejnar, 2002). However, the output recovery after the initial “transition shock” of the early 1990s was accompanied by continued job destruction, and when the Central and Eastern European Countries had to face the Russian crisis in 1998 and the global economic slowdown in 2001-2002, labour markets took a new adjustment hit.

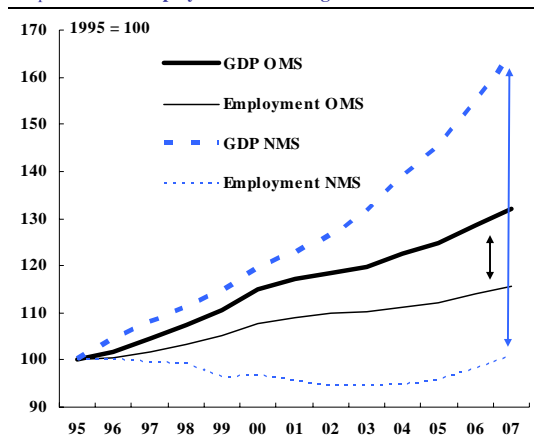
Thus, while the average growth rate of the new Member States exceeded that of the old Member States since 1995, employment continued to fall or not grow at all. Until 2003, job destruction in manufacturing prevailed in almost all countries. Between 1995 and 2003, employment in industry (excl. construction) fell at an average annual rate

⁽⁵⁰⁾ For econometric evidence see European Commission (2008h); for a discussion of the effects of euro-area participation on the reform path see European Commission (2007f). The effect of reforms improving the employability of groups with low labour market attachment on the employment and productivity trade-off is discussed and assessed in European Commission (2007e).

⁽⁵¹⁾ In the case of Italy, Rosolia and Torrini (2007) found that the wage gap between old and young workers went up from 20% in the late 80s to 35% in the early 2000s... this decay is not accounted for by developments in relative supplies of skill-age groups over time and reflects almost entirely falling entry wages."

of about 1.8% against an average fall of 0.3% for the old Member States. The jobs created in services only partially offset the effect of the downsizing of manufacturing industry and the employment losses in agriculture and mining. Overall, in 2003 employment was 6% lower than in 1995, corresponding to a loss of 2.5 million jobs. Compared to the old Member States, output growth in the new Member States translated into high productivity growth - growth was jobless (Graph V.1.3).

Graph V.1.2: Employment and GDP growth



Source: Commission services

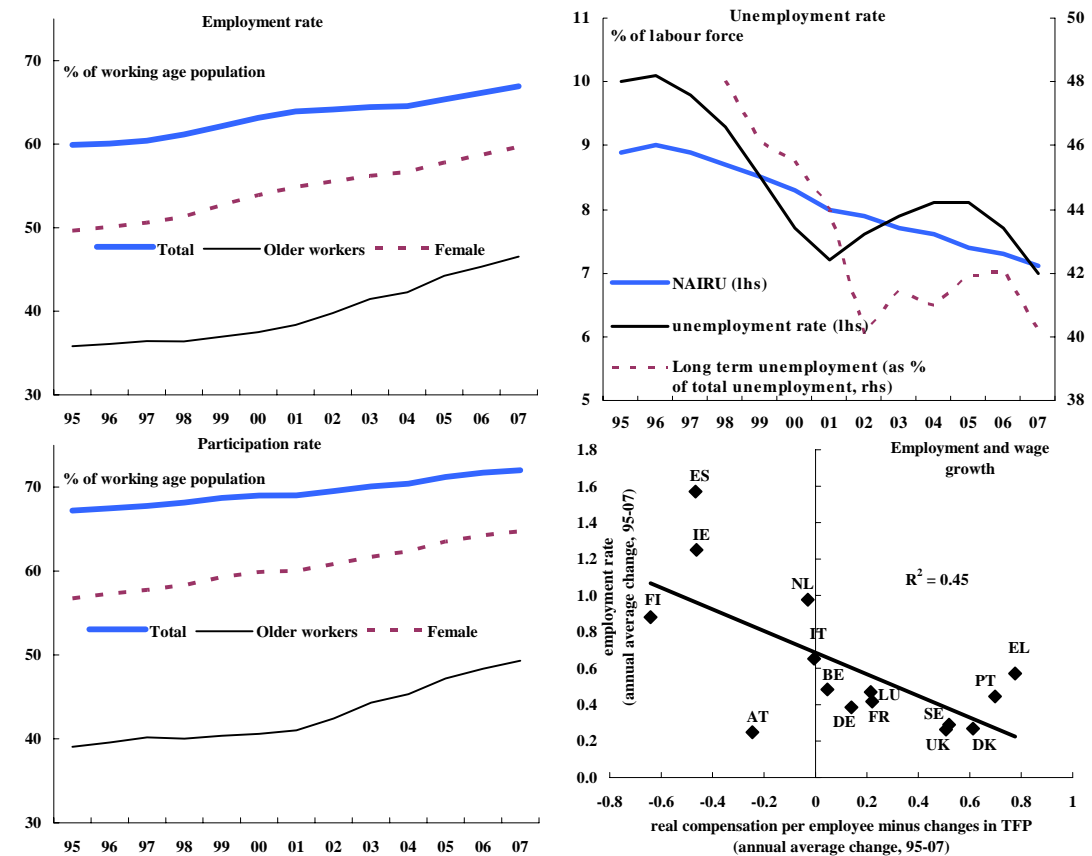
Although all countries of the area were hit by the same shocks, the response of the labour market differed across countries, gender and age groups. The impact on unemployment was particularly profound in Poland, Slovak Republic, and Lithuania, where the gap vis-a-vis the EU-15 unemployment stood at more than 10 percentage points in the peak year of unemployment. Conversely, the increase in unemployment was more contained in the others countries (Graph V.1.4). Yet, with the exception of Hungary, Latvia, Slovenia and the South Mediterranean countries, the increase in unemployment persisted for a considerable period of time. It took more than 10 years for the unemployment rate of Czech Republic, Poland and Slovakia to get back to the lowest rates of the mid-1990s; and, while less persistent, 5 and 7 years were needed for the unemployment rates of Estonia and Lithuania to recover to the low rates of the early 2000s.

The changes in the unemployment rate do not reflect uniform patterns in the employment and participation rates. The increase in unemployment in Poland and Lithuania was accompanied by massive job losses, especially in Poland, and by a gradual but continuous decline in the participation rate, which was also common to the Czech Republic and Slovakia. Conversely, the participation rate remained broadly unchanged in Estonia and Malta and even increased over time in Cyprus, Hungary, Slovenia and Latvia. Despite all the progress in recent years, employment and participation rates of the Member States that joined in 2004 were in 2007 below the EU-15 average (67% and 72%) by about 7 and 6 percentage points (Graph V.1.4).

Male workers were hit more adversely than women, which can be explained by restructuring taking place in sectors, such as industry or mining, largely dominated by men. The high share of employed persons in agriculture and the baby boomers of the post-war years, hit hardest by the shocks, made the fall in the total employment and participation rates more spectacular and persistent. By 2007, male employment rates were below the level of 1998 by about 6 percentage points. In contrast, the female rates, consistent with the overall pattern of the old Member States, picked up in almost all new Member States.

For the new Member States as a whole that joined in 2004, the youth employment rate (for those aged between 15 and 24) has been declining since the early years of transition and in 2007 stood at about 27%, more than 13 percentage points below the EU-15 average. This decline was particularly sizeable in the Czech Republic, Hungary, (13 percentage points below respectively compared to 1998), Lithuania and Slovakia (-7 percentage points compared to the rate of 1998). While a declining youth employment rate is evident throughout the EU, reflecting the general tendency towards more education, the very low rates for the new Member States signal a difficult transition from school to work, especially for those at the lower end of the skill scale (Quintini et al., 2007).

Graph V.1.3: Labour market performance in the old Member States, 1995-2007



Source: Commission services

The older workers employment rate (aged 55-64) picked up in almost all new Member States, especially in Latvia, Hungary, Lithuania, and Slovakia. Only in Poland was the older workers' employment rate in 2007 almost 4 percentage points below the rate of 1998.

However, the low employment and participation rates do not necessarily mean that the labour markets are rigid. Data on transition probabilities for the period 2002-2006 suggest that the labour market of the new Member States as a whole is characterised by intense job flows. Compared to the old Member States, the new Member States have relatively high job destruction and job creation rates as well as high rates in and out of the labour force (in particular from unemployment to inactivity and vice versa).

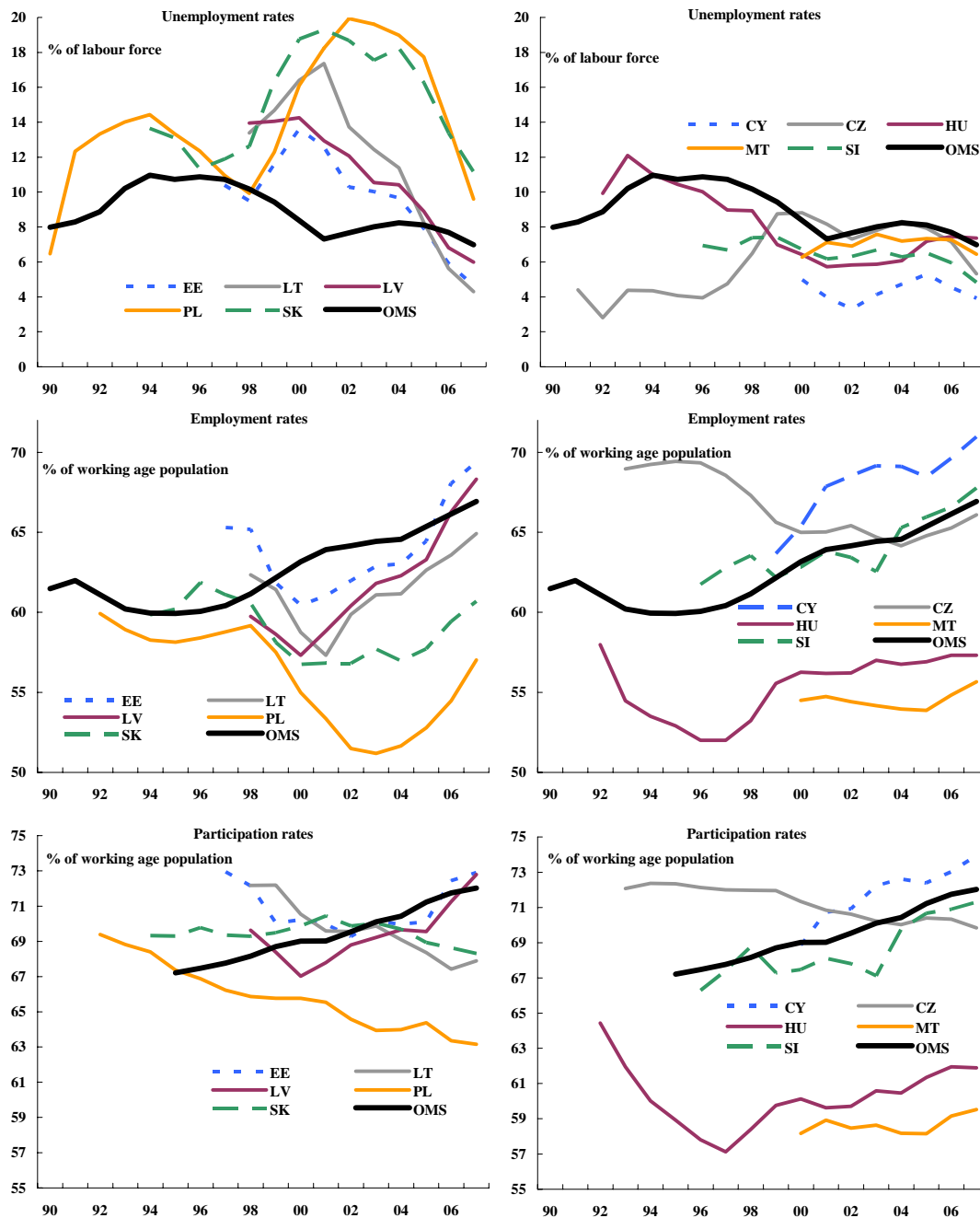
There is a significant heterogeneity, especially as regards the probability of either finding a job or of becoming inactive when unemployed. Yet

with the exception of Slovakia and Poland, all new Member States that joined in 2004 have a job-finding rate higher than that of the remaining countries of the EU, with Hungary having the highest probability (more than 50%). There is a striking difference in the risk of leaving the labour market when unemployed. While for Poland, the Baltic States and Slovakia this risk is lower than or similar to that of the average of the remaining Member States, for Hungary and Slovenia it is twice and four times as much as the EU-15 average respectively.

Tightening labour markets

Since 2003, the new Member States have seen a reversal of fortunes in their labour markets. Aided by resilient economic growth, employment gathered pace, with almost 3 million net new jobs created over the period 2003-2007. The expansion of the workforce was broadly-based and involved all segments of the

Graph V.1.4: Labour market performance in the new Member States, 1990-2007



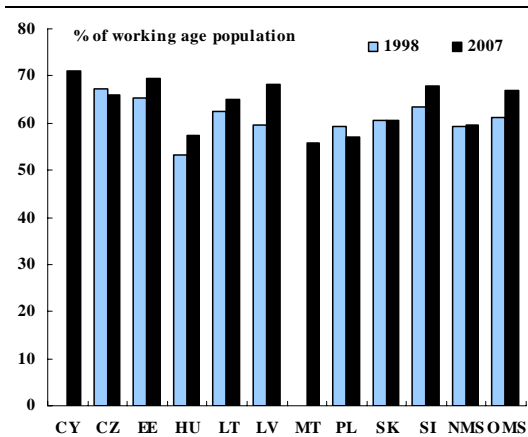
Source:

labour force. After falling continuously in the first three years of the decade, prime-age (25-54) and young workers' employment started a recovery in 2003-2004 that has accelerated in recent years, achieving in 2006-2007 the highest growth rates for a decade (2% and 3% respectively). A salient feature of the recovery

was the vigorous acceleration of male employment, which expanded between 2003 and 2007 at an annual average of 2% against a yearly decline of 0.5% over the period 2000-2003. The recovery of male employment was stronger than for female as men had been hardest hit by the restructuring of the economy.

In parallel, the unemployment rate started to decline, rapidly closing the gap with the rest of the Union. In 2007 the unemployment rate had dropped to 7.6%, down by 5 percentage points from its 2003 level. The decline involved all new Member States and especially Poland (down by 10 percentage points to 9.7%), Slovakia (down by 6 percentage points to 11.1%), and Bulgaria (down by 7 percentage points to 6.9%). Even so, the share of long-term unemployed was on an upward trend and started to decline only in 2006, still hovering at around 56% (more than 13 percentage points above the EU-15 average).

Graph V.1.5: Overall employment rates in the new Member States



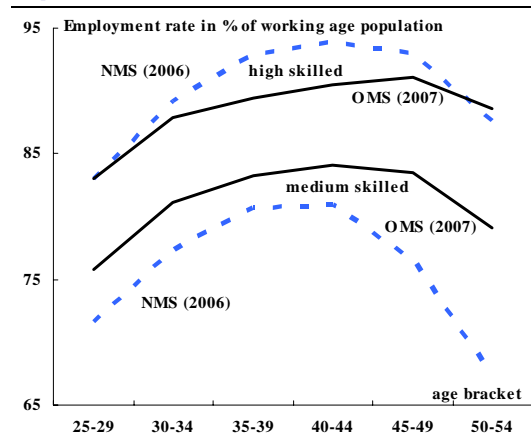
Source: Commission services

The effects of the restructuring of the economy were felt particularly by those with inflexible skills. At the onset of the transition, the general opinion was that the central and eastern European countries had a relative highly qualified labour force. The reality was an over-expanded system of primary vocational education which promoted the accumulation of specific and non-fungible skills, badly adaptable to a situation of intense restructuring. The inadequate skilling resulted in a high and, until recently, rising long-term unemployment rate. Thus, the combination of a falling unemployment rate and high long-term unemployment was a symptom of skill mismatch, which resulted in strong competition among companies for labour and in skills shortages across many industries.

The high labour shortages reported in several new Member States suggests that the labour

market has been tightening, especially in the Baltic States, the Czech Republic, Poland, Romania and Cyprus (Graph V.1.6). Labour shortages are spread all over the economy, especially in the industry sector where labour shedding was particularly pronounced during the mid-1990s. To some extent, the appearance of labour shortages reflects the drop in unemployment and average growth rates of GDP between 2003 and 2007 above 5.5% and, obviously, emigration may have accentuated labour market and skill shortages. Even so, the reported lack of personnel is a signal that structural labour market problems are still pending. The low employment and activity rates for specific groups and the high long-term unemployment are an indication of the difficulties faced by job-seekers in these countries, especially young people, the low-skilled and the medium-skilled aged 45 years and over.

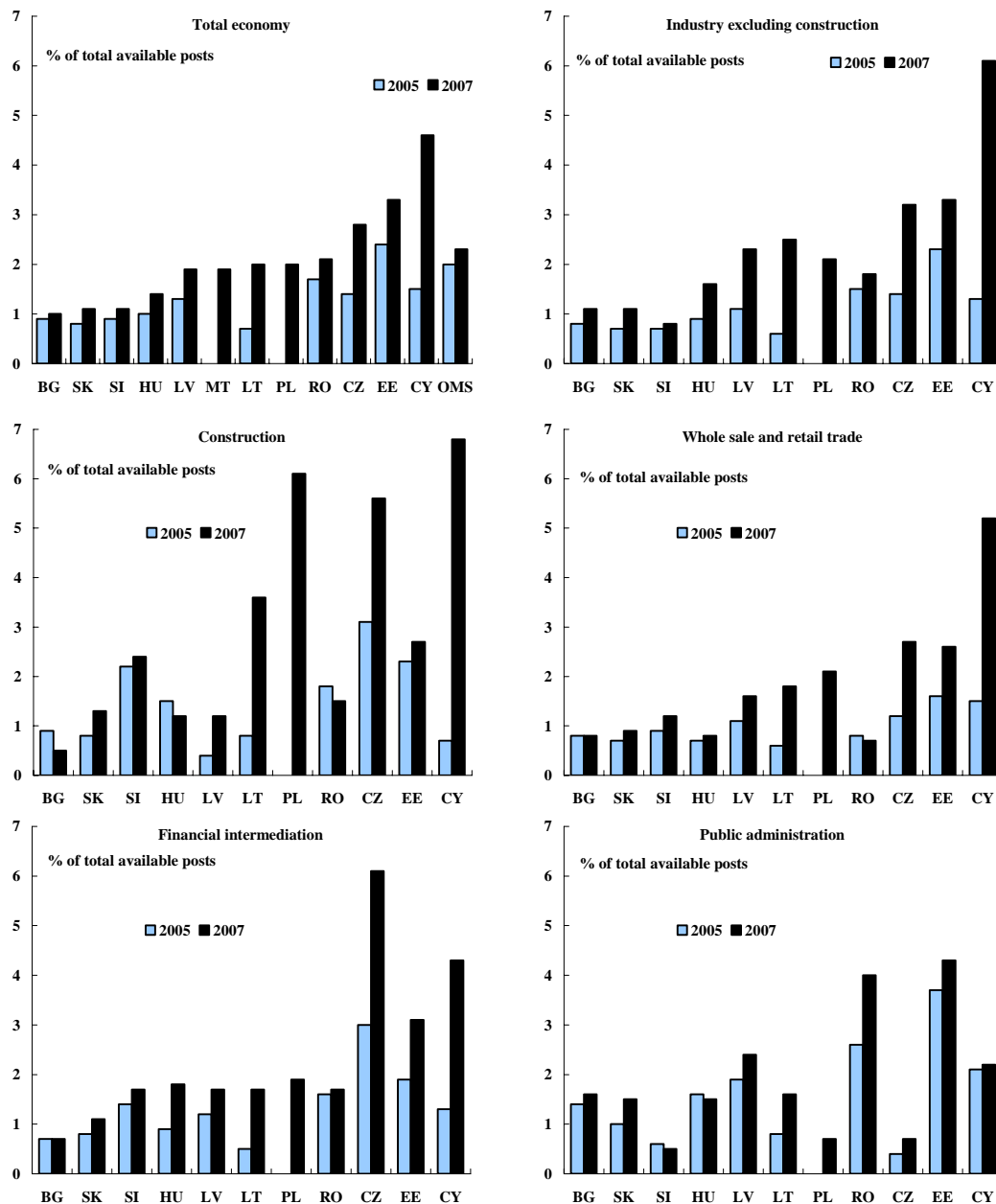
Graph V.1.6: Employment by age and skill level



Source: Eurostat (Labour Force Survey)

The employment rate for the medium- and highly skilled shows the usual hump-shaped age profile (Graph 5.1.7). It is low for young and older workers and peaks at around the mid-40s. Employment rates for the highly-skilled are not far from the EU rates and are even higher for the central age groups, suggesting that the highly educated were only marginally affected by the overall labour market shakeout. This pattern does not hold for the medium-skilled. Their employment rates are constantly below the EU-15 average for everyone up to 45, and fall more than in the rest of the EU after that age.

Graph V.1.7: Job vacancy rate in the new Member States, 2005 and 2007



Source: Eurostat

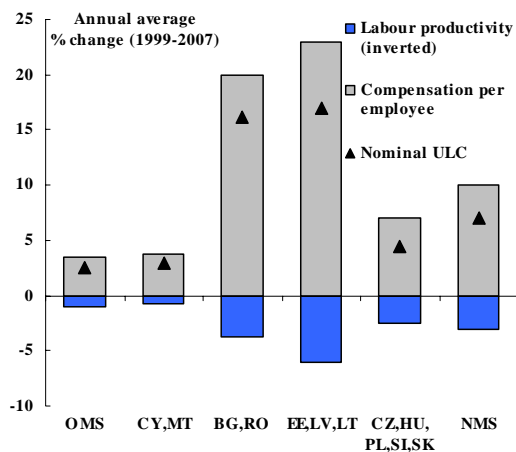
In several countries of the region, a sharp acceleration in nominal wage growth in line with tightened labour market conditions was not sufficiently mitigated by productivity gains, thus leading to substantial inflationary pressures stemming from the labour market. Nominal compensation per employee grew stronger in the new Member States over recent years and continued to do so in 2007. The highest rates of

growth of compensation per employee in 2007 were registered in Latvia (33.2%), Estonia (26.5%), Romania (20.2%), and Bulgaria (17.9%). At the lower end of the spectrum, wage growth in Malta was even below the EU-15 figures. Half of the new Member States are placed in between the old and the new Member States' average values, namely, Cyprus, Slovenia,

the Czech Republic, Poland, Slovakia, and Hungary (Graph V.1.8).

The Czech Republic, Hungary, Poland, Slovakia and Slovenia, together with Cyprus and Malta exhibited most similarity with the old Member States in terms of nominal unit labour cost growth. Although both nominal wage and productivity growth are well above the EU-15 values, nominal wage growth has been largely aligned with productivity developments. The Baltic countries benefited from shrinking nominal unit labour costs between 1999 and 2002 owing to relatively moderate nominal wage increases and strong productivity performance. This trend was reversed as of 2003, giving way to mounting wage pressures. Bulgaria and Romania are also characterised by high nominal unit labour cost growth. In spite of some decline in growth rates in nominal compensation per employee, these are still the two new Member States with relentlessly high increases in nominal unit labour costs.

Graph V.1.8: Nominal unit labour costs and its components



Source: Commission services (AMECO)

2. THE OPENING OF THE BORDERS AND MOBILITY

One of the big unknowns for policy makers surrounding the May 2004 EU enlargement was the effect it would have on East-West migration flows, both in terms of the actual numbers moving across borders as well as the economic impact of those flows on the sending and receiving Member States. Many commentators feared that there could be a massive surge of workers from poorer Central and Eastern European countries flooding the labour markets of the old Member States and negatively affecting wages and local workers' employment in the receiving countries. These fears led to many old Member States imposing temporary restrictions on the flow of workers into their countries, with just three Member States (i.e. the UK, Ireland and Sweden) fully opening their labour markets in May 2004.

Against this backdrop, this section examines the reality regarding intra-EU cross-border mobility flows over recent years and assesses whether the initial economic predictions, including those of standard migration models, have been confirmed or confounded by actual events. It first reviews the transitional arrangements for the free movement of workers that have been put in place in Member States. It then presents the available evidence on the extent of intra-EU mobility after 2004 and identifies the main receiving and sending countries. Moreover, it sketches the characteristics of the movers and the various types of mobility flows that can be distinguished. Based on this descriptive evidence, the section then proceeds to assess the economic impact of the mobility flows following enlargement for both the sending and receiving countries. It finds that the migration-induced re-allocation of labour resources across countries following the 2004 EU enlargement process has already brought sizeable economic benefits for the enlarged EU. Moreover, in line with other studies (see e.g. Brücker, 2009, and Kahanec and Zimmermann 2009) and the recent Communication from the European Commission on the impact of the free movement of workers in the context of EU enlargement, it can be concluded that post-enlargement intra-EU mobility flows have not led - and are unlikely to lead - to serious labour market disturbances, with respect to both real wages and unemployment trends.

2.1. TRANSITIONAL ARRANGEMENTS FOR THE FREE MOVEMENT OF WORKERS

In order to address concerns about potential labour market disruptions, transitional arrangements were introduced, allowing Member States to restrict the free movement of workers from most of the new Member States for a maximum of seven years after accession to the EU. Concerning the eight Central and Eastern European countries which joined the EU in May 2004, four of the old EU Member States currently maintain restrictions (Table V.2.1). A further extension of these restrictions after April 2009 and until April 2011 at the latest is only possible if there is a serious disturbance of the labour market or threat thereof (Box V.2.1).

With respect to Bulgaria and Romania, 11 Member States opened their labour markets to Bulgarian and Romanian workers upon both countries' accession in January 2007. Greece, Hungary, Portugal and Spain opened their labour markets in January 2009.

2.2. EXTENT OF INTRA-EU MOBILITY AFTER ENLARGEMENT

2.2.1. EU citizens resident in other EU Member States

The exact scale of post-enlargement mobility flows is difficult to determine due to several shortcomings in the existing data and largely open borders between the Member States. However, available population statistics and data from the EU Labour Force Survey suggest that the total number of citizens from the 2004-accession countries living in one of the old Member States has increased by some 1.1 million since the 2004 enlargement⁽⁵²⁾. While the number of citizens from the new Member States that joined in 2004 resident in the old Member

⁽⁵²⁾ Note that mobility flows from Malta to other EU Member States have been marginal. Recent outflows from Cyprus have also been rather small (amounting to only 2% of recent overall flows from the 2004-accession countries to the old Member States). Greece and the UK were the two noteworthy EU destination countries for Cypriots.

Table V.2.1: Member States' policies towards workers from the new Member States

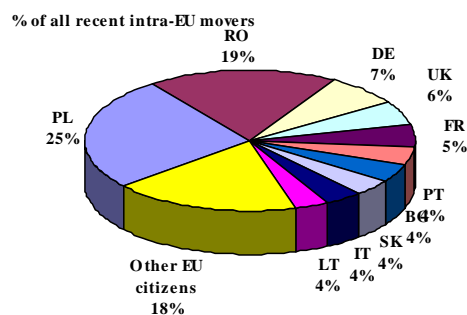
	OMS/NMS (excluding BG, RO, CY, MT)	Bulgaria and Romania		
Old Member States	Belgium	Restrictions with simplifications	Restrictions with simplifications	
	Denmark	Restrictions with simplifications	Restrictions with simplifications	
	Germany	Restrictions with simplifications *	Restrictions with simplifications *	
	Ireland	Free access (1 May 2004)	Restrictions	
	Greece	Free access (1 May 2006)	Free Access (1 January 2009)	
	Spain	Free access (1 May 2006)	Free Access (1 January 2009)	
	France	Free access (1 July 2008)	Restrictions with simplifications	
	Italy	Free access (27 July 2006)	Restrictions with simplifications	
	Luxembourg	Free access (1 November 2007)	Restrictions with simplifications	
	Netherlands	Free access (1 May 2007)	Restrictions	
	Austria	Restrictions with simplifications*	Restrictions with simplifications*	
	Portugal	Free access (1 May 2006)	Free Access (1 January 2009)	
	Finland	Free access (1 May 2006)	Free access (1 January 2007)	
	Sweden	Free access (1 May 2004)	Free access (1 January 2007)	
	United Kingdom	Free access, mandatory monitoring	Restrictions	
	New Member States	Czech Republic	No reciprocal measures	Free access (1 January 2007)
		Estonia	No reciprocal measures	Free access (1 January 2007)
Cyprus		-	Free access (1 January 2007)	
Latvia		No reciprocal measures	Free access (1 January 2007)	
Lithuania		No reciprocal measures	Free access (1 January 2007)	
Hungary		Reciprocal measures (simplifications 1.1.08)	Free access (1 January 2009)	
Malta		-	Restrictions	
Poland		No reciprocal measures (17 January 2007)	Free access (1 January 2007)	
Slovenia		No reciprocal measures (25 May 2006)	Free access (1 January 2007)	
Slovakia		No reciprocal measures	Free access (1 January 2007)	
Bulgaria		No reciprocal measures	-	
Romania		No reciprocal measures	-	

Note: Restrictions also on the posting of workers in certain sectors
Source: Directorate General of Employment

States stood at over 900,000 at the end of 2003, it now stands at about 2 million. The number of Romanians and Bulgarians resident in the old Member States increased from around 690 000 in 2003 to about 1.8 million in 2007 according to the available data, - a process which had started well before the accession of both countries to the EU in January 2007 (European Commission, 2008f). In terms of recent arrivals (Graph V.2.1), Polish citizens accounted for 25% of all recent intra-EU movers who took residence in another Member State over the past four years, followed by Romanians (19%), Germans (7%), British (6%) and French (5%).

The main EU destination country in absolute terms has been the UK which received almost a

Graph V.2.1: Nationality of recent intra-EU movers, 2007



Note: Recent movers defined as persons resident four years or less in the host country (age group 15-64)
Source: Eurostat (Labour Force Survey)

Box V.2.1: The principle of free movement of workers and transitional arrangements

Free movement of persons is one of the fundamental freedoms guaranteed by EU law. It includes the right of EU nationals to freely move to another EU Member State to take up employment and reside there with their family members. Free movement of workers (Article 39 EC) must be legally distinguished from freedom of establishment of self-employed (Article 43 EC) and freedom to provide services (Article 49 EC). The Directive on posting of workers relates to the latter freedom and is not subject to transitional arrangements although Germany and Austria are allowed to apply restrictions on the cross-border provisions of services in certain sensitive sectors involving the temporary posting of workers as set out in paragraph 13 of the transitional arrangements of the country-specific annexes of the 2003 and the 2005 Acts of Accession. Free movement of workers precludes Member States from directly or indirectly discriminating against EU workers and their families on the basis of nationality in employment related matters. It also ensures equal treatment as regards public housing, tax advantages and social advantages.

However, the Accession Treaties of 2003 and 2005 allow Member States to temporarily restrict the free movement of workers from the Member States that joined in 2004 (with the exception of Malta and Cyprus) and 2007 to their labour markets. These so-called transitional arrangements can only be applied to workers but not to self-employed or any other category of EU citizens. Notwithstanding the restrictions, a Member State must always give preference to workers from the new Member States over workers who are nationals of non-EU countries as regards access to the labour market.

The overall transitional period of a maximum of seven years is divided into three distinct phases ("2-plus-3-plus-2" formula). Different conditions apply during each phase:

- for an initial 2 year period, the national law of the other Member States regulates the access of workers from the new Member States. At the end of this first phase, the Commission has to provide a report as a basis for the Council to examine the functioning of this first phase of the transitional arrangements (European Commission, 2006b).
- Member States can extend their national measures for a second phase of another 3 years upon notification to the Commission before the end of the first phase, otherwise EC law granting free movement of workers applies.
- Restrictions should in principle end with the second phase but a Member State can maintain restrictions for a final third phase of 2 more years upon notifying the Commission of a serious disturbance of its labour market or a threat of such a disturbance.

The transitional arrangements for Bulgaria and Romania will irrevocably end on 31 December 2013 and for the other new Member States on 30 April 2011 ⁽¹⁾.

⁽¹⁾ More information on transitional arrangements <http://ec.europa.eu/social/main.jsp?catId=466&langId=en>

third of recent intra-EU movers, followed by Spain (18%) and Ireland (10%). Around 60% of the Poles went to the UK, while their second main destination country was Ireland (Table V.2.2). Spain received well over 50% of recent intra-EU movers from both Bulgaria and Romania. The second most important receiving country for recent movers from Romania has been Italy (around 25%), with flows to other Member States much smaller and nowhere

exceeding 2% of the total. For recent movers from Bulgaria, the second main receiving country in the EU has been Germany (15%), with Greece, Italy, France, the UK and Cyprus receiving most of the others in largely equal parts.

In almost all Member States the number of recent arrivals from non-EU countries exceeds the number of newcomers from other EU Member

Table V.2.2: Main EU destination countries of recent intra-EU movers, 2007

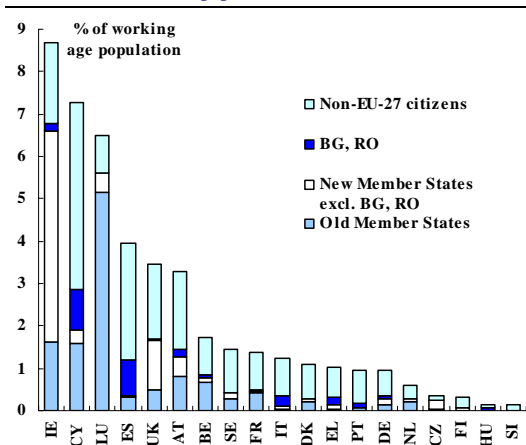
Citizenship	Destination (% of citizenship total)		
PL	UK 59	IE 17	DE 11
RO	ES 57	IT 26	UK 2
DE	FR 33	AT 22	UK 18
UK	FR 39	ES 20	IE 18
FR	UK 35	DE 16	BE 16
PT	ES 31	FR 28	UK 28
BG	ES 56	DE 15	EL 7
SK	UK 55	CZ 21	IE 11
IT	ES 26	UK 23	FR 21
LT	UK 52	IE 33	DE 10
Other	UK 38	DE 17	FR 9
Total	UK 32	ES 18	IE 10

Note: Recent movers, see graph V.2.1
Source: Eurostat (Labour Force Survey)

States. The only exceptions are Ireland and Luxembourg. Moreover, in most Member States the inflow of other EU-15 nationals has been larger than the number of recent arrivals from the new Member States (Graph V.2.2).

Ireland has also been by far the largest receiving country for nationals from the 2004-accession countries relative to its population size, with around 5% of its current working-age population from the new Member States that joined in 2004, followed by the UK (1.2%).

Graph V.2.2: Recent intra and extra EU movers and the resident population



Note: Recent movers, see graph V.2.1
Source: Eurostat (Labour Force Survey)

Austria and Luxembourg also have a significant proportion of arrivals from these countries, albeit much smaller than in the UK and Ireland. In all

other Member States the population share of recent arrivals from the 2004-accession countries is very small, - even in Sweden which never applied restrictions to the free movement of workers as well as in those Member States which have opened their labour markets since 2006.

Concerning recently arrived nationals from Romania and Bulgaria, Spain and Italy show the highest shares, with 0.9% and 0.3% respectively of their working-age population consisting of mostly Romanians (note also Cyprus with 0.9%).

2.2.2. Mobility flows from the sending countries' perspective

A look at the sending countries also reveals a very heterogeneous picture, with "high-mobility" and "low-mobility" countries amongst the new Member States.

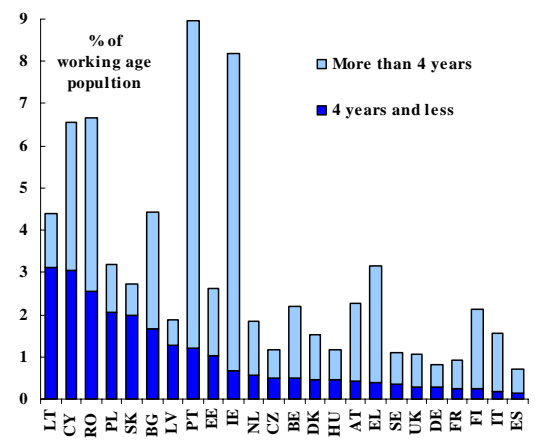
The highest recent mobility rate of all Member States (Graph V.2.13) is found in Lithuania, with 3.1 % of Lithuanians having moved to other EU Member States over the past four years, followed by Cyprus (3%), Poland and Slovakia (both 2%). Although still substantial, intra-EU mobility rates for Latvia and Estonia are significantly lower. Interestingly, Portugal also has a high recent intra-EU mobility rate of 1.2 %, to some lesser extent also Ireland and the Netherlands.

On the other hand, the Czech Republic and Hungary have rather low intra-EU mobility rates which are below or equal to that of many of the EU-15 Member States. For Slovenia, Malta and Luxembourg the numbers involved are too small to be statistically reliable.

As for Romania, the recent outflow of citizens to other EU Member States over the past four years amounts to about 2.5% of the Romanian working age population. In Bulgaria the corresponding intra-EU mobility rate has been 1.7%.

Taking a longer-term perspective and including emigrants who left their home country more than four years ago, Portugal and Ireland show the highest share of citizens living in another EU Member State (9% and 8.2% respectively, Graph V.2.3).

Graph V.2.3: Mobility rates by sending country, 2007



Note: Figures do not include citizens who were born in another Member State and continue living there
Source: Eurostat (Labour Force Survey)

2.2.3. Temporary mobility flows and postings

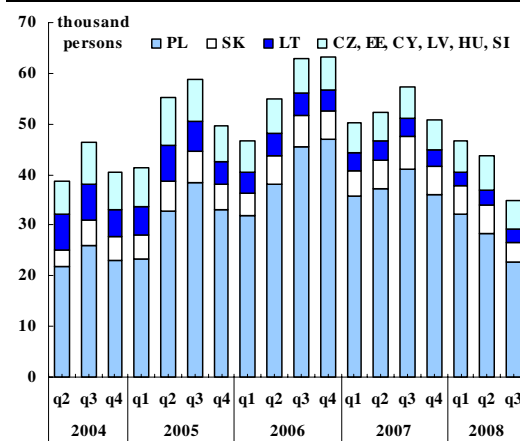
A characteristic feature of post-enlargement mobility flows (and recent intra-EU mobility in general) is that a large part of it appears to be temporary. Evidence from some Member States indicates that many mobile workers go to another Member State for a few months or years but do not intend to stay forever. For example, data for the UK suggest that around half of those citizens from 2004-accession countries who came to work in the UK since 2004 may have already left the country again, with a similar picture emerging for Ireland (European Commission, 2008f and Pollard et al., 2008).

2.2.4. Future mobility flows

A further surge of labour mobility from the new Member States seems unlikely. Mobility flows from the 2004-accession countries to the UK and Ireland appear to have peaked in 2006 and have significantly declined in 2007 and even more so in the first three quarters of 2008 (Graphs V.2.4 and V.2.5). Moreover, there are indications of an increased return migration of those who are already living in the UK (Pollard et al., 2008). Furthermore, the opening of labour markets for workers from the 2004-accession countries in most of the other EU-15 countries since 2006 may have led to a limited diversion of mobility flows to some other Member States, but the most recent development of foreign population shares suggests that it has not unleashed a substantial

additional inflow of workers from these Member States.

Graph V.2.4: Inflow of workers from the new Member States to the UK



Note: Approved applicants to the workers registration scheme
Source: UK Home Office (Accession Monitoring Reports)

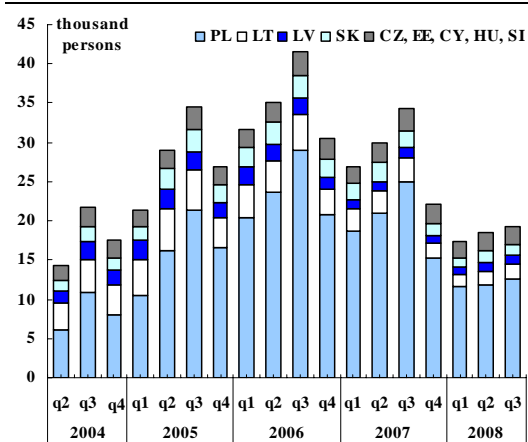
Even in the case of Bulgaria and Romania, large numbers have already been moving from these countries and working in the EU over the past years, suggesting that many of those who wanted to move have already moved and that the potential for additional emigration is limited.

Moreover, as shown in the first part of this chapter, all of the main EU sending countries have seen a rapid rise in incomes and decline in unemployment over recent years. There is some evidence that this is already dampening the incentive to migrate and is likely to contribute to a further decline in labour supply from the new Member States (Barthélemy and Maurel, 2009). Moreover, due to a substantially shrinking young generation, the pool of potentially mobile workers from the new Member States is getting considerably smaller and likely to act as a brake on geographic labour mobility within the EU.

In addition, examples such as Sweden, Finland, Greece, Portugal (early free labour market access but low labour inflows) and Germany and Austria (restricted access but relatively high inflows) suggest that restrictions on labour market access have only a limited influence on the distribution of intra-EU mobility. Ultimately, mobility flows are driven by other factors such as general labour demand, network effects through existing foreign populations or language. If

anything, restrictions on labour market access will only delay labour market adjustments. They may even exacerbate resort to undeclared labour, leading to undesired social consequences both for undeclared workers and the regular labour force, if not accompanied by appropriate enforcement of legislation (see in this context European Commission, 2008c: Communication on undeclared work).

Graph V.2.5: Inflow of workers from the new Member States to Ireland



Note: Number of issued Personal Public Service Numbers
Source: Irish Department of Social and Family Affairs

The experience since 2004 suggests that lifting restrictions on labour market access reduces the likelihood of undeclared work by citizens from the new Member States. For example, it has been suggested that up to 40% of workers from 2004-accession countries registering for the workers registration scheme in 2004 may have already been in the country when the UK opened its labour markets (UK Home Office, 2004). Reports from the Netherlands indicate that the incidence of illegal employment of citizens from 2004-accession countries working without a permit decreased after the Netherlands decided to open its labour market in 2007 (Ministry of Social Affairs and Employment of the Netherlands, 2007).

2.3. MAIN CHARACTERISTICS OF INTRA-EU MOVERS

2.3.1. Labour market status, age and gender

The great majority of recent movers from the new Member States have come to work (Graph V.2.6). Data for 2007 indicate that the average employment rate of recent intra-EU movers from the 2004-accession countries is significantly higher than for the EU-15 population (⁵¹). Recent arrivals from Bulgaria and Romania have an average employment rate which is about equal to the average employment rate in the old Member States and substantially higher than the overall employment rate in Romania and Bulgaria. Average unemployment among recent movers from the new Member States was only slightly higher than the EU-15 average, and lower than for recently arrived workers from non-EU countries. The vast majority of nationals from the new Member States who recently moved for work purposes are employed workers, with less than 10% being self-employed.

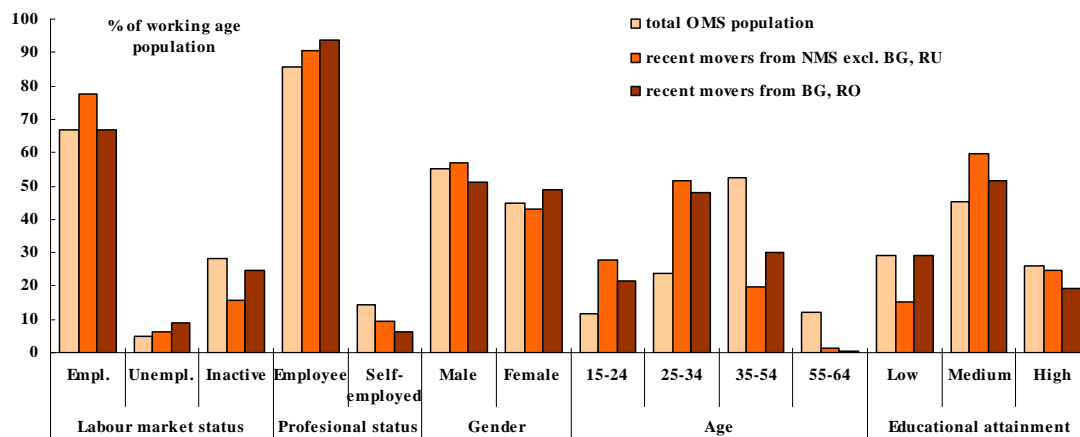
EU mobile workers are substantially younger than the overall labour forces in the sending and receiving countries. Close to 80% of recently arrived workers from the 2004-accession countries and close to 70% from Romania and Bulgaria are younger than 35. The gender breakdown of recent movers from the new Member States by and large corresponds to that in the labour forces of both the sending and receiving countries; women seem on average slightly overrepresented in the case of recent movers from Romania and Bulgaria.

2.3.2. Occupations, skills and sectors

Recent arrivals from the 2004-accession countries have mostly gone into manufacturing, construction, hotels, restaurants, business related services and private households (Table V.2.3). Recent arrivals from Bulgaria and Romania tend to work predominantly in agriculture, construction, hotels and restaurants, and as employees in private households.

Most recent arrivals from the 2004-accession countries work in jobs that tend to require intermediate skills and, above all, in low-skill jobs, with rather few employed in highly-skilled

Graph V.2.6: Socio-economic breakdown of recent movers from new Member States to old Member States



Note: Recent movers, see graph V.2.1. Data on professional status, gender, age and educational attainment refer to active population aged 15-64, data on labour market status refer to total population aged 15-64. Data for the UK on educational attainment not included in the calculation due to measurement problems.

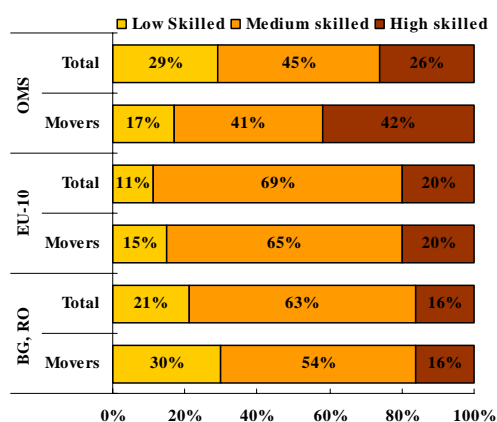
Source: Eurostat (Labour Force Survey)

occupations (Table V.2.4). The proportion of recently mobile workers from Romania and Bulgaria among the high-skilled occupations is even lower, with a relatively high number employed in crafts and elementary jobs.

Overall, mobile workers from the new Member States have made a positive contribution to the skill mix of the labour force in the old Member States (Graph V.2.7). The share of university educated recent movers from the new Member States appears to be only moderately lower than among the EU-15 labour force.

Moreover, the share of those recent arrivals from the new Member States with a medium level education is higher than among the EU-15 labour force, while the share of low-skilled recent arrivals from Romania and Bulgaria is about the same as for the EU-15 labour force and substantially lower in the case of movers from the 2004-accession countries. However, comparing the proportion of medium and highly-skilled workers from the new Member States to the proportion of those working in intermediate and low-skilled jobs suggests that not all of them are employed according to their skill levels.

Graph V.2.7: Educational attainment of recent movers, 2006



Note: Recent movers, see graph V.2.1

Source: Eurostat (Labour Force Survey)

The share of the highly-skilled among recent emigrants is on average somewhat higher than among the total labour force of their home countries. However, the percentage of medium-skilled recent movers tends to be lower than in the overall labour force while the share of low-skilled movers is relatively higher. In general, these figures do not suggest a disproportionate loss of highly-skilled workers for the new Member States; yet concerns about brain drain and labour shortages should not be dismissed too easily; see section 2.4.4.

Table V.2.3: Employment by economic activity of recent movers from new to old Member States, 2007

% of total employment by group	Old Member States		NMS excl. RO, BG		RO, BG	
	total	movers	total	movers	total	movers
Agriculture	3.1	:	9.4	2.3	20.8	7.1
Fishing	0.1	:	0.1	:	(0.1)	0.0
Mining and quarrying	0.2	:	1.2	:	1.2	:
Manufacturing	17.5	15.9	22.5	25.3	22.7	10.0
Electricity gas and water supply	0.7	:	1.5	:	2.0	:
Construction	8.3	8.4	8.3	13.2	8.0	28.4
Wholesale and retail trade	14.3	10.8	14.6	12.1	13.8	6.3
Hotels and restaurants	4.6	9.1	2.9	13.3	2.5	13.2
Transport storage and communication	6.1	6.2	7.0	7.7	5.9	(2.0)
Financial intermediation	3.3	4.8	2.3	:	1.2	:
Real estate renting and business activities	10.6	17.4	6.5	9.4	3.6	6.4
Public administration	7.4	2.7	6.5	:	5.8	:
Education	7.1	7.4	7.3	2.0	5.1	:
Health and social work	10.7	8.9	6.1	6.3	4.4	3.1
Community and personal service	4.9	4.9	3.8	4.0	2.7	(2.1)
Private households	1.3	:	0.2	2.1	0.4	19.4
Extra-territorial organisations	0.1	(1.4)	(0.0)	:	:	:

Note: Recent movers, see graph V.2.1. Employment: agriculture, construction, hotels and restaurant, may understate, due to underestimation of seasonal workers.

Source: Eurostat (Labour Force Survey)

Table V.2.4: Employment by skills of recent movers from new to old Member States, 2007

% of total employment by group		total OMS	EU-10 movers	BG/RO movers
High -skilled	Legislators senior officials and managers	8.8	2.6	:
	Professionals	13.9	4.3	3.1
	Technicians and associate professionals	17.4	5.2	(2.4)
Medium-skilled	Clerks	11.9	4.4	(2.0)
	Service workers and shop and market sales workers	13.9	17.6	16.0
	Skilled agricultural and fishery workers	2.5	:	2.9
	Craft and related trades workers	13.6	16.0	28.3
Low-skilled	Plant and machine operators and assemblers	8.1	18.0	4.4
	Elementary occupations	9.9	31.0	39.1

Note: Recent movers, see graph V.2.1

Source: Eurostat (Labour Force Survey)

2.4. THE IMPACT OF RECENT INTRA-EU MIGRATION

2.4.1. Impact on growth, GDP per capita and inflation

Several recent studies have tried to estimate the impact of intra-EU migration on GDP and other macroeconomic variables after EU enlargement. Most of these studies find relatively modest GDP effects in the short run and more substantial effects over the medium to long-term, although the exact results vary significantly with the estimates' underlying assumptions concerning

expected future migration flows, the skill mix of native versus migrant workers, speed of adjustment of capital stocks and other factors (Barell et al., 2007, Brücker (2007), and D'Auria, Mc Morrow, Pichelmann, 2008).

Simulation analysis employing the EU Commission's QUEST model (D'Auria, Mc Morrow and Pichelmann, 2008) shows that the effect on EU-25 GDP of recent intra-EU mobility flows is substantial and positive at 0.27%. This GDP effect is equivalent to a collective income gain of around €30 billion for the citizens of the 25 Member States. A migration shock of this magnitude would

consequently be much more potent, in economic terms, than for example a 1 percentage point increase in the EU-25's investment to GDP ratio. In fact, on the basis of the long-run potential migration estimate of Boeri et al. (2001), internal EU-25 migration flows could produce gains which are higher than those likely to be achieved from the further economic integration of the EU-25's goods and capital markets.

These highly positive effects from international migration within the EU are in keeping with the view that migration increases the productive use of human resources within the area as a whole and, hence, add strongly to GDP. This positive efficiency effect is shown in GDP per capita, productivity and real compensation of employees (Table V.2.5), with real wages tending to grow in line with productivity over the long run. GDP per capita is an important indicator of the effect of migration on living standards since migration not only changes GDP in the receiving and sending countries but also their respective overall populations.

The GDP per capita gain at the EU-25 level may initially appear surprising given the negative impact of migration on EU-15 GDP per capita. However, important composition effects have to be taken into account. Whilst the average EU-15 GDP per capita effect is negative, we must allow for the fact that there are now roughly 1 million additional workers from the 2004-accession countries in EU-15 countries who have increased their incomes substantially (according to some estimates by 100% or more). This composition effect must be taken into account at the overall EU level where, for example, if we assume that 1 million workers are now earning close to the EU average, as opposed to the average of the salary levels in 2004-accession countries (i.e. an average per capita gain of roughly €20000), this effect alone would add close to €20 billion to EU income.

With respect to the other labour market variables focussed on in the simulation, the positive employment rate effect reflects only small positive gains for the unemployment rate in the EU as a whole, with migrants tending to move from countries with relatively high unemployment rates to countries where rates are generally lower. Furthermore, it is reasonable to

assume that most of the changes in the employment rate emanate from changes in participation rates, with any short-term effects on the NAIRU being cancelled out over the very long run (i.e. more than 20 years) once the physical capital stock in the countries affected has adjusted fully to the migration flows. Moreover, whilst there are some short run public finance and balance of payments effects associated with the migration shock (most notably with respect to emigrants' remittances), the magnitude of the effects over the longer run is extremely small.

Regarding the distribution of the gains between the receiving EU-15 countries and the sending 2004-accession countries, Table V.2.5 summarises the differences. For the old Member States, migration from the 2004-accession countries has added to its labour force growth, implying an increase in its long term growth potential. The negative GDP per capita effect reflects the lower productivity and lower real wages associated with the migration shock, with labour becoming more abundant relative to capital and causing a reduction in the capital intensity of production in the old Member States. With respect to the employment rate impact, the small positive effect for the old Member States essentially reflects the impact of participation rate changes.

With respect to the effects on the sending 2004-accession countries, GDP declines by 2¼% (Table V.2.5), but capital deepening induced gains for real wages, productivity and GDP per capita. The higher impact on productivity and real wages compared with GDP per capita is explained by the decline in the sending countries' employment rate relative to baseline. This decline reflects the impact of negative wealth effects on labour force participation rates in the 2004-accession countries, with lower participation and employment rates ensuring that the GDP per capita gains are more subdued relative to productivity.

With respect to nominal variables, post-enlargement migration has led in the old Member States to a decrease in the price level of -0.42% over 10 years, corresponding to an average yearly effect on inflation of about -0.04%. This reduction in inflationary pressures in the

Table V.2.5: Medium-term economic effects of recent intra-EU mobility flows on receiving and sending Member States

Changes in percent from baseline	GDP	GDP per capita	Productivity	Real Compensation of Employees	Employment Rate	Public Finances / Balance of payments
OMS	0.38	-0.12	-0.13	-0.12	0.01	Negligible
NMS	-2.23	0.28	0.42	0.46	-0.14	Negligible
EU	0.27	0.27	0.27	0.28	0.04	Negligible

Note: New Member States except Bulgaria and Romania; employment rate: change in percentage
Source: D'Auria, Mc Morrow and Pichelmann, 2008

receiving countries is driven by a drop in nominal wages, which decrease by -0.54%. In other words, immigration into the old Member States is expected to raise the supply potential of the host economies to a greater degree than its effects in raising aggregate demand. These effects work essentially the other way around in the sending countries, with the rise in nominal wages as a whole being associated with a price level increase of 3.56% (which corresponds to an average yearly increase in the inflation rate of the sending countries of approximately 0.36%).

At the individual Member State level, the degree of migration exposure of old Member States to inflows of workers from the 2004-accession countries varies quite significantly and consequently the associated economic effects differ across countries. However, the estimates suggest that for the main receiving and sending countries the impact of recent intra-EU mobility flows on GDP and inflationary pressures has been quite significant.

2.4.2. Impact on public finances, welfare systems and public services

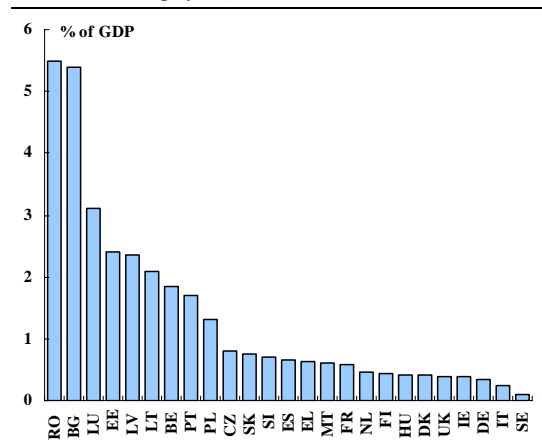
The impact of recent migration and mobility flows on public finances and the welfare state (including its financing) appears to be negligible or positive at national level although there are variations across different functions of the welfare state and levels of government. Migration and mobility flows have in some cases created pressure on education, housing and health care services at the local level (for an overview see European Commission, 2008).

2.4.3. Remittances

Remittances by workers living abroad can be a substantial source of income in the country from

which the migrant workers come and help to drive economic growth by financing investment in education and start-ups of capital-intensive businesses.

Graph V.2.8: Workers' remittances (incl. compensation of employees), 2006



Source: World Bank, Migration Remittances Factbook 2008

Remittances data suggest that they make a significant contribution to GDP in several EU Member States, in particular in Poland, the Baltic States, and above all in Romania and Bulgaria (Graph V.2.8).

2.4.4. Brain drain and labour shortages in the sending countries

In a number of countries, the emigration of mostly younger workers has sparked concerns over brain drain and labour shortages. Several reports indeed indicate that emigration has led to labour shortages in some countries, e.g. the Baltic States and Poland.

However, in many countries labour shortages have been aggravated by factors other than emigration, such as strong economic growth,

relatively low labour market participation, in particular of younger and older persons, and low internal mobility. Moreover, labour shortages mostly affect specific sectors of the economy (e.g. construction, hotels and restaurants) and professions (e.g. health care). Furthermore, the differences in the skill-mix between emigrants and the sending countries' labour forces seem to be relatively moderate, suggesting that the overall brain drain may be limited. There is also evidence that enrolment rates for tertiary education in the new Member States have substantially accelerated over the past years, which may begin to balance out the outflow of skilled labour (European Commission, 2008f and Brücker et al., 2008).

2.4.5. Social impacts

There is evidence of differences between the living conditions of newcomers and host country nationals including higher risks of poverty, poorer educational outcome for their children, difficulties in accessing housing, health care and other social services. Furthermore, there have been reports from some sending countries of negative impacts on family cohesion and children as a consequence of one or both parents working abroad (Commission, 2008f).

2.5. SUMMARY AND CONCLUSIONS

Workers from new Member States have helped to meet extra demand for labour in the receiving countries and have thus made a significant contribution to sustained economic growth. Evidence at hand suggests that the impacts of post-enlargement intra-EU mobility have not led - and are unlikely to lead - to serious labour market disturbances. This is not to say that there have been no economic and social costs. However, experience suggests that instead of restricting labour market access of EU nationals, alternative solutions may be a better and more effective way to address these costs.

Moreover, the size and direction of mobility flows is not only driven by restrictions on labour market access but also by general labour supply and demand and other factors. Restrictions on labour market access may delay labour market

adjustments and even exacerbate the incidence of undeclared work.

Concerning transitional arrangements for the 2004-accession countries, restrictions should in principle end on 30 April 2009. The very few Member States still applying restrictions on the free movement of workers can only maintain them beyond April 2009 if they notify the Commission of a significant disturbance of the labour market or the threat thereof. Yet, current available evidence does not point towards serious mobility-induced labour market disturbances. This is not to say that there are no costs involved with opening labour markets to workers from outside. However, practically all the evidence at hand suggests that the benefits outweigh the costs and that any negative labour market and economic impacts have not led or are unlikely to lead to serious labour market disturbances, not only at an aggregate level but also at the level of regions, sectors or occupations.

Regarding Bulgaria and Romania for which the second three-year transitional phase starts in January 2009, Member States maintaining restrictions should consider carefully whether these restrictions are still needed in the light of the experiences and evidence presented, and notwithstanding the rights set out in the Treaties of Accession concerning transitional arrangements.

Even in the unexpected case of a serious labour market disturbance after labour markets open, a Member State thus affected can still apply for a safeguard clause provided for in the Accession Treaties under which free movement of workers may be partially or wholly suspended within the seven-year transitional period in order to restore a normal situation.

If it is indeed feared that opening of labour markets would create 'losers' among the resident population, alternative solutions such as labour market policies to bring (low-skilled) unemployed people back into work may be a more efficient way of dealing with this issue, at the same time allowing the benefits of intra-EU mobility to be reaped.

Likewise any negative impacts concerning public services, housing, social cohesion, and

exploitation of migrant workers or undeclared work need to be addressed. However, such impacts are not a good reason to maintain restrictions on labour market access under transitional arrangements. On the contrary, as experience has shown, some of these problems are likely to be exacerbated by access restrictions, such as the incidence of undeclared work, false self-employment or the violation of labour standards.

From the perspective of new Member States, in particular the 'high-mobility' countries, substantial outflows of workers are sometimes perceived as a mixed blessing. On the one hand, emigration has helped to reduce unemployment in some Member States by allowing unemployed persons to look for jobs in other Member States. On the other, the outflow of, in particular, younger and relatively highly-skilled people have led to concerns about brain drain and labour shortages.

While some Member States, in particular the high-mobility countries (e.g. Poland and Lithuania), do indeed suffer from skill shortages, there are a number of factors which help to alleviate or offset these problems. First, a significant recent rise in tertiary-education enrolment indicates that the number of highly educated people available to the labour market has been increasing in most of the new Member States. Secondly, much of the recent east-west mobility appears to be temporary. Moreover, improving income and working conditions in most of the new Member States already seem to be starting to reduce the incentive to emigrate and to attract back home many of those who are still abroad. And those who do come back often do so with improved working skills and international contacts which can be of benefit to the home country.

Brain drain, in any case, cannot be effectively curbed by legal restrictions on the free movement of workers, even if well meant. Many destinations, both inside and outside Europe, would still remain in particular for the well-educated.

Addressing brain drain and skill shortages will require policy-makers of mainly the sending countries to devise an appropriate policy mix

consisting of such elements as measures to increase general labour market participation, further improvements to education and vocational training, pay and working conditions for public sector workers, incentives for return migration, facilitating both internal labour mobility and immigration from outside the EU.

Finally, it is worth remembering that freedom of movement of workers is one of the basic freedoms under the EC Treaty. This freedom is based on the rationale that international labour mobility contributes positively to the way labour markets function throughout Europe, something to which all Member States have subscribed. For many citizens throughout Europe, in particular in the new Member States, the freedom to move and work in another European country has also become a powerful and positive symbol of what Europe means for the individual. It is this aspect, too, which should not be forgotten when deciding by when to allow all EU citizens to enjoy this freedom.

Chapter VI

Integrating in the EU or in the world?

SUMMARY OF MAIN FINDINGS

Against the background of increased integration of goods, labour and capital markets, as analysed in previous chapters, the business cycle in the new Member States shows a higher degree of synchronisation with the old Member States as compared to the global business cycle. Overall, there is still a synchronisation lag between the new and the old Member States, but the business cycle in Cyprus, the Czech Republic, Malta, Poland and Slovenia already displays a high degree of alignment. Greater synchronisation means less volatility and less country-specific shocks, facilitating the formulation of policies, as similar recipes can be applied throughout the European Union.

The greater synchronisation in some countries does not appear to have been backed by higher trade intensity as such, but there is some evidence that the similarity of trade patterns mattered. Furthermore, similar monetary policy and, to a lesser extent, fiscal policy and financial integration are important factors in explaining why some Member States are better synchronised than others with the EU-15 countries.

Trade integration between the old and new Member States levelled off, but for the EU as a whole the degree of integration was maintained on account of increased trade among the new Member States. More importantly, increasingly homogeneous trade patterns between the two groups of countries are observed, indicative of more intra-industry trade that is expected to promote a symmetric propagation of shocks.

The message coming from the production structure of the economy is ambivalent. There is a trend towards similar economic structures in nominal terms, with the share of services in GDP growing in the new Member States from 56% of GDP in 1995 to 63% in 2006, which is, however, still below the old Member States (72% of GDP). Agriculture and manufacturing remain more important in the new Member States than in the old (4.6% of GDP versus 1.6% and 21.2% versus 16.7% in 2006, respectively). While rising relative prices (and wages), reflecting the Balassa-Samuelson effect, are the drivers behind the increased importance in nominal terms of the service sector in the new Member States, strong productivity gains explain the rise of the

manufacturing sector in real terms. Concentrating on the sectors displaying comparative advantages maximises catching-up, but delays the convergence of economic structures with the old Member States, hampering the synchronisation of business cycles. The associated risks can, however, be overcome with sufficient financial deepening and integration leading to risk sharing.

INTEGRATING IN THE EU OR IN THE WORLD?

Economic theory suggests that the degree of cyclical synchronisation is related to the degree of economic integration and structural similarity between countries. In gauging changes in the synchronisation of countries' business cycles and the underlying driving factors, it is important to distinguish EU-specific developments from worldwide integration tendencies, i.e. globalisation.

The effects of goods and capital market integration on business cycle synchronisation are theoretically ambiguous. The net effect is composed of a synchronisation-enhancing effect on the demand side of the economy, and a synchronisation-diminishing effect on the supply side resulting from increased incentives for specialisation.

Against this background, this chapter analyses the link between economic integration of the new Member States in the EU, including an analysis of structural similarity and specialisation trends (section 1), and the synchronisation of their business cycles (section 2). Section 3 seeks to formalise this link using an econometric model.

1. ECONOMIC INTEGRATION, STRUCTURAL SIMILARITY AND SPECIALISATION

Openness to trade is a key element in measuring the degree of integration of the new Member States in the EU. The higher the degree of openness, the more any changes in international prices of tradable goods are transmitted to domestic prices and the cost of living. Furthermore, as indicated by Frankel and Rose (1998, 2000), a high degree of trade openness is likely to lead to more synchronous business cycles via a symmetric propagation of common demand shocks. Yet, as argued by Krugman (1993), this is to be expected only to the extent that trade is dominated by intra-industry trade, whereas inter-industry trade would favour sectoral specialisation, and thus a de-synchronisation of cycles. The analysis of trade integration in the context of cyclical synchronisation must thus be complemented by an analysis of the similarity of economic structures and the quality of trade flows.

Trade integration

The new Member States are characterised by a high and rising degree of trade openness. Measured by the average of exports and imports as a percentage of GDP, openness in the EU-12 has increased from 42% in 1999 to 58% in 2007. Looking specifically at new Member States' exports to EU-15 countries, the share in total exports was fairly stable at around 68% between 1999 and 2003, but has decreased since then to just below 60% in 2007. Exports between new Member States have gained in importance since 2004, with their share in total new Member States' exports rising from around 14% in the pre-accession period to close to 20% in 2007. The share of exports to former USSR countries (CIS) has increased since 2004, while the rest of the world has slightly lost ground as a trading partner.

Overall, it appears that while new Member States' trade openness has increased over time, the share of exports going to the old Member States, though still high, has been falling. The rest of the world, including the US, does not play a big role. Looking at flows from the old Member States, however, the share in total exports going to the new Member States has risen steadily over the past decade (to 7.5% in 2007).

Structural similarity

The similarity of economic structures has a direct and an indirect link to cyclical synchronisation. The direct effect works through the symmetric impact of common shocks and the decreasing likelihood of idiosyncratic shocks in the case of structurally homogeneous countries. The indirect effect operates through trade relationships, where the degree of cross-country specialisation is decisive for whether trade can be expected to foster or reduce business cycle synchronisation.

The composition of output tends to be closely related to the stage of economic development. Empirically, a higher level of development can be associated with a smaller share of agriculture in aggregate output and a larger share of services, whereas the share of industry typically has an inverted U-shaped relationship to per capita output, increasing first and declining later.

Table VI.1: Output composition in nominal terms

% of gross value added		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Agriculture	OMS	2.7	2.7	2.6	2.4	2.3	2.2	2.2	2.1	2.0	1.9	1.7	1.6
	NMS	8.6	8.1	7.7	6.9	6.1	5.7	6.0	5.3	5.2	5.7	4.9	4.6
Construction	OMS	5.9	5.7	5.5	5.4	5.5	5.5	5.6	5.7	5.8	5.9	5.9	6.1
	NMS	6.2	6.6	6.5	7.0	6.9	6.6	6.3	6.1	5.9	5.8	6.2	6.7
Manufacturing	OMS	20.3	19.9	20.0	19.9	19.5	19.3	18.8	18.2	17.6	17.3	16.9	16.7
	NMS	23.2	22.7	22.5	21.5	21.1	21.2	20.3	20.0	20.5	21.4	21.1	21.2
Energy	OMS	3.2	3.2	3.1	2.9	2.8	2.8	2.7	2.7	2.6	2.7	2.9	3.1
	NMS	5.8	5.8	5.5	5.2	5.2	4.9	4.9	5.1	5.0	5.1	4.9	4.8
Services	OMS	67.9	68.4	68.8	69.2	69.9	70.1	70.6	71.4	72.0	72.2	72.5	72.4
	NMS	56.1	56.8	57.8	59.4	60.8	61.5	62.5	63.5	63.5	62.0	62.9	62.8
Distance	OMS-NMS	11.8	11.7	11.0	9.9	9.1	8.6	8.1	7.9	8.6	10.2	9.6	9.6
	OMS-US	7.9	7.4	7.3	7.0	7.1	7.1	7.8	7.5	7.4	7.0	6.6	6.6
	NMS-US	19.4	18.9	18.1	16.9	16.0	15.4	15.5	15.0	15.2	16.4	15.2	15.4

Note: The distance indicator is computed as $I = 100 * (|s_j^{OMS} - s_j^{NMS}|) / 2$, where s_j denotes the share of activity j in total activity. Distance = 0 indicates identical output composition; distance = 100 indicates maximum dissimilarity in output composition.

Source: Commission services (AMECO)

Distinguishing between agriculture, construction, manufacturing, energy/water and services, the shares of the five activities in total value added (VA) at current prices reveal a significant difference in output composition between old and new Member States (Table VI.1). Agriculture accounts for a significantly larger share in the new Member States, and services represent a much smaller share. Manufacturing and construction are somewhat larger in the new Member States, and more significantly so the energy and water sector. At the same time, while there are no dramatic changes in the structure of output over the observed twelve-year period, there is nonetheless a trend of convergence of the new towards the old Member States. While the shares of agriculture and manufacturing declined between 1995 and 2006, the services sector increased. However, since around 2003/4, these trends appear to have come to a halt or even been partly reversed in the services and manufacturing sectors.

The information can be condensed by computing an index of output dissimilarity, assessing the overall distance in sectoral output composition between new and old Member States (Krugman, 1993). The distance indicator points to a diminishing distance between new and old Member States between 1995 and 2002, but to a renewed pick-up around 2003/4 and a stabilisation thereafter. A broadly similar picture emerges for the comparison with the US. Owing in particular to the significantly larger services sector in the US (above 78%), the structural distance between the new Member States and the US is appreciably larger than with the EU-15-

countries. While the distance measure declined steadily until around 2000, there is a stabilisation thereafter.

To examine whether the movements as described are due to real output redistribution, changes in relative prices or both, the same measures can be computed on a real basis, i.e. using value added data at constant (2000) prices. In principle, one would expect both price and quantity changes to occur. Productivity growth in the tradable sector should raise the relative prices of (less traded) services in the new Member States via the Balassa-Samuelson effect. Changes in consumption patterns linked to an increase in living standards should also drive up prices of services and lower demand for agricultural products. At the same time, real output redistribution would imply real resources flowing from the stagnant activities to the growing activities, i.e. presumably services and to some extent industry.

In real terms, the changes in output composition point to slight structural divergence rather than convergence (Table VI.2). While the real distance index is rather stable between 1995 and 2002, the measure points to mounting structural differences since around 2004. The picture is again similar for the US, but slightly less pronounced. The main reason for the pick-up in structural difference in real terms seems to be a rising share of the manufacturing sector and an again falling share of services activities, contrary to movements in both the old Member States and the US. These trends point to the significance of changes in relative prices rather than real output

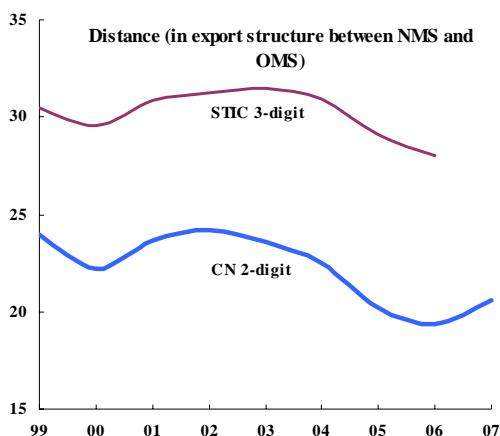
Table VI.2: Output composition in real terms

% of gross value added		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Agriculture	OMS	2.3	2.3	2.3	2.3	2.3	2.2	2.1	2.1	2.0	2.1	2.0	1.9
	NMS	7.2	6.9	6.8	6.5	6.4	5.8	6.1	6.0	5.9	6.4	5.8	5.4
Construction	OMS	6.2	6.0	5.8	5.7	5.7	5.5	5.5	5.5	5.5	5.4	5.4	5.5
	NMS	7.1	7.2	7.1	7.3	6.9	6.7	6.3	6.1	5.8	5.8	6.0	6.3
Manufacturing	OMS	19.4	19.1	19.3	19.3	19.1	19.3	19.1	18.8	18.6	18.6	18.5	18.6
	NMS	19.2	19.7	20.2	20.0	20.4	21.2	21.1	21.2	21.9	22.7	23.2	24.4
Energy	OMS	2.9	3.0	2.9	2.9	2.9	2.8	2.8	2.8	2.8	2.8	2.7	2.6
	NMS	5.7	5.7	5.5	5.3	5.0	5.0	4.6	4.4	4.2	4.2	3.9	3.5
Services	OMS	69.1	69.6	69.7	69.9	70.0	70.1	70.4	70.8	71.1	71.0	71.4	71.4
	NMS	60.7	60.4	60.4	60.9	61.4	61.4	61.8	62.3	62.2	61.1	61.2	60.7
Distance	OMS-NMS	8.6	9.2	9.2	9.0	8.6	8.7	8.6	8.4	8.9	10.0	10.2	10.8
	OMS-US	8.5	7.9	7.8	7.4	7.4	7.1	7.9	7.4	7.4	7.2	6.9	7.1
	NMS-US	16.2	16.6	16.5	16.1	15.7	15.5	16.3	15.7	16.1	17.1	17.1	17.9

Note: Distance: see Table VI.1. NMS excluding Malta
 Source: Commission services (AMECO)

redistribution in the new Member States (Balassa-Samuelson effect).

Graph VI.1: Trade specialisation



Note: Distance: see Table VI.1
 Source: Commission Services (Comext)

Product and trade specialisation

The analysis has so far described developments in broad sectoral composition rather than in actual product specialisation. An analysis using a deeper industrial breakdown into 56 industries broadly confirms the above results for Poland, the Czech Republic, Hungary and Slovakia for the period up to 2003⁽⁵³⁾. Comparing export shares for 99 and 158 product categories (CN 2-digit and STIC 3-digit breakdown) between old

and new Member States, a clear convergence in export composition emerges over time, indicative of more homogeneous trade patterns, i.e. increasing intra-industry trade (Graph VI.1, see also Chapter III.1.4).

Summing up

The analysis sends mixed signals as to the likely impact of trade developments on business cycle synchronisation. Looking at export structure by destination, the share of old in new Member States' total exports has decreased over the last decade on account of stronger intra-EU-12 trade and trade with CIS countries. On the other hand, the share of the new in old Member States' total exports has increased. Measured by output composition in real terms, the structure of new Member States' economies still seems to be significantly different from that of old EU Member States, pointing to further need for structural convergence. However, the quality of trade flows in goods between new and old Member States seems to have become more homogeneous. Despite remaining differences in non-merchandise sectoral composition, the apparent gain in importance of intra-industry trade would speak in favour of an increasingly homogeneous effect of sector-specific shocks on the two groups of countries, thus fostering the synchronisation of their business cycles.

⁽⁵³⁾ The distance indicator as in Table V.1, computed over industrial shares (ISIC rev 3) in value added at current prices, declines slightly from 23.4 in 1995 to 21.1 in 2003 on average across the four countries.

2. BUSINESS CYCLE SYNCHRONISATION BETWEEN NEW AND OLD MEMBER STATES: THE EMPIRICAL PICTURE

Subsequent to the indirect, theoretically-founded approach of the previous section, this section looks directly at empirical measures of business cycle synchronisation. Cross-country correlations of output fluctuations, measured by de-trended GDP, and other measures of synchronisation are used. To gauge which components of output have the highest degree of synchronisation, a separate analysis is carried out for expenditure and sectoral GDP components.

2.1. Overview of previous findings

Owing to the relatively short data samples and the wide variety of business cycle indicators and de-trending methods used, the literature on business cycle synchronisation of the new Member States has arrived at highly variable conclusions. One rather general result is that synchronisation with the old Member States seems to be present, but at a lower average level than for individual old Member States. Similar conclusions emerge concerning inflation. The results differ considerably across countries, reflecting the heterogeneity of the new Member States and making general conclusions hard to draw. Lastly, most contributions target the degree of synchronisation with the euro area rather than the old Member States with a view to gauging the new Member States' preparedness for EMU enlargement.

Analysing synchronisation between the EMU and the eight Central and Eastern European countries, Darvas and Szapáry (2008) find that Hungary, Poland and Slovenia have achieved a high degree of synchronisation with the EMU for GDP, industrial production and exports, but not for consumption and services. For the other countries, they find less or no synchronisation. Using impulse response analysis, Slovenia and Poland are found to be most sensitive to euro-area shocks. Eickmeier and Breitung (2006) use a large-scale structural factor model to analyse the variance shares of output and inflation explained by common euro-area factors. The proliferation of euro-area shocks appears rather similar for new and old Member States, masking, however, a considerable degree of heterogeneity

across the new Member States. Covering all twelve countries, Afonso and Furceri (2007) find Cyprus, Hungary and Malta to be highly synchronised with EMU countries. At the same time, synchronisation seems to have increased over time overall. On a sectoral level, their results suggest that the industry, building and agricultural sectors are the main driving forces of synchronisation, while the services sector is characterised by a low level of synchronisation. Artis, Marcellino and Proietti (2004) find that cyclical synchronisation with Germany is large for Poland, Slovenia, Estonia, Hungary and the Czech Republic.

In a meta study, Fidrmuc and Korhonen (2006) provide a comprehensive overview of the literature on business cycle synchronisation and the (a)symmetry of macroeconomic shocks between new Member States and the euro area. Analysing 35 studies, the highest average estimates of business cycle correlation with the euro area are found for Hungary (0.36), followed by Slovenia (0.26) and Poland (0.25). In several studies, the cycles of one or more new Member States are found to be correlated more closely with the euro area than one or more peripheral euro area economies (Portugal, Ireland and Finland). It has to be noted, though, that the study summarises findings that are based on data samples typically ending in or before 2002, i.e. not covering developments over the latest six years.

2.2. Empirical analysis

2.2.1. GDP-based synchronisation

Following established practice in the literature, filtered GDP series are used to measure countries' business cycles⁽⁵⁴⁾. Four measures of synchronisation are calculated on the basis of the derived series.

⁽⁵⁴⁾ The Christiano and Fitzgerald (2003) bandpass filter is used, extracting swings of between one and a half and eight years periodicity, in line with the general notion of the business cycle. As a robustness check, the two-sided HP-filter version proposed by Artis, Marcellino and Proietti (2003) was also used. In general, the two methods led to very similar estimates of the business cycle and the results proved robust using either of the two filters.

Given the interest in the temporal development of business cycle synchronisation, the measures are calculated for sub-periods and, in the case of the correlation measure, also using a four-year rolling window. Given that in the early 1990s several new Member States were in "transitional recession", the analysis excludes pre-1995 data. The total sample from 1995 to 2008 is divided into the sub-periods 1995 to 2001 and 2002 to 2008⁽⁵⁵⁾. The slight deviation from the natural division into pre- and post-2004 data is warranted by the need for robust estimation results in the sub-periods, where five years of quarterly data would constitute an unreasonably small data sample. Moreover, given that economic agents are forward-looking, it can be argued that the synchronisation-enhancing effects of EU accession were already largely contained in the data two years before actual accession took place. Apart from old and new Member State data, OECD and US data are examined with a view to separating European integration from broader globalisation trends.

Correlation

The first measure of synchronisation is the contemporaneous correlation between the EU-15 and new Member States' cycles. This measure is widely used in the literature, providing a simple, robust and intuitive measure of cyclical co-movement.

Over the full sample, only Cyprus, Latvia and Slovenia display a bilateral correlation with the EU-15 aggregate in excess of 50% (Table VI.3), with Poland and Bulgaria scoring just below that threshold. On average across countries, correlation is at 0.30 over the full sample, and has risen significantly from 0.23 in the first to 0.51 in the second sub-period⁽⁵⁶⁾.

Table VI.3: **Business cycle correlation: new Member States with old Member States aggregate**

	95-08	95-01	02-08
BG	0.49	0.53	0.64
CY	0.80	0.78	0.85
CZ	0.23	0.16	0.60
EE	0.14	-0.10	0.72
HU	0.38	0.42	0.34
LT	-0.29	-0.41	0.08
LV	0.59	0.40	0.86
MT	na	na	0.52
PL	0.47	0.55	0.34
SI	0.59	0.39	0.86
SK	-0.36	-0.45	-0.16
NMS	0.30	0.23	0.51
OMS	0.77	0.76	0.81

Note: NMS and OMS are unweighted averages. NMS excludes Malta
 Source: Commission services

To put this into perspective, the average correlation of individual old Member States with the EU-15 aggregate is as high as 0.77 over the full sample, with a minimum value of 0.61 attained for the peripheral countries Finland and Portugal. The rather steep increase in correlation of the new Member States on average in the second sub-period is due to increases in all countries but Poland and Hungary, where correlations decreased from above-average values in the first sub-period. In the post 2002 sample, correlation is clearly above average for Bulgaria, Cyprus, the Czech Republic, Estonia, Latvia and Slovenia, average for Malta, and below average for Lithuania and Slovakia, but also Poland and Hungary.

The development of average synchronisation over time demonstrates that the message depends crucially on whether individual correlations are weighted with countries' GDP shares (Graph VI.2). While the un-weighted average displays a clear upward trend, with a temporary dip in 2003/4⁽⁵⁷⁾, the case for increased synchronisation is less clear when looking at the

⁽⁵⁵⁾ Seasonally-adjusted quarterly data is used, extended using Commission forecasts where available. Quarterly National accounts data for Romania and Malta is not available before 2000, and for Romania only in non-seasonally adjusted form. Therefore, the country had to be excluded from most of the analysis, while a partial analysis is carried out for Malta.

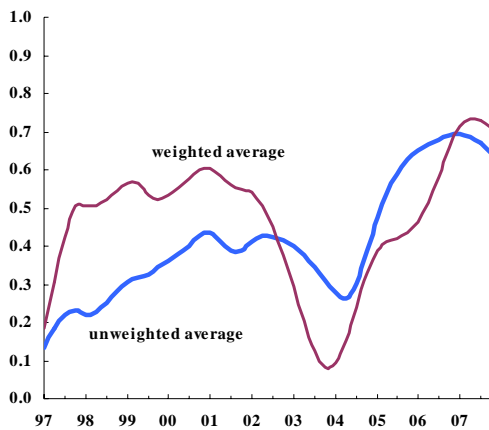
⁽⁵⁶⁾ For comparison, the average correlation of the aggregate NMS cycle with the aggregate EU-15 cycle is as high as 0.82 over the full sample, reflecting, however, the smoothing impact of combining country-specific

idiosyncrasy on the aggregate figure. Reflecting the dominant share of Poland and Hungary in new Member States' GDP, correlation of the new Member State aggregate has actually fallen somewhat to 0.75 in the second sub-period.

⁽⁵⁷⁾ This temporary fall in correlation around 2003, which is also visible in intra-euro area correlation, seems to mirror a recurrent pattern of temporary de-synchronisation in the early upswing phase of the business cycle, see Gayer (2007) for evidence on the EA and Doyle/Faust (2002) on the G7.

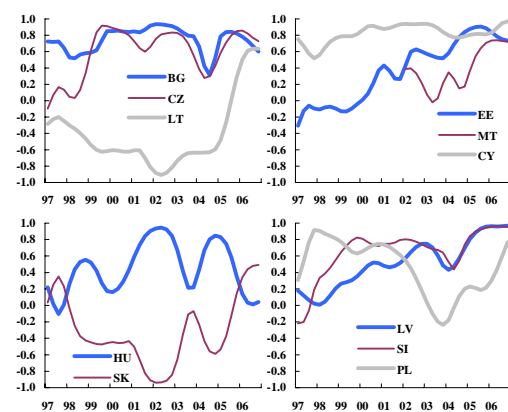
weighted average of individual correlations. This mainly reflects the high degree of EU-15 correlation of the Polish cycle before 2002, followed by the temporary decline in 2003-2004 (Graph VI.3). Looking at very recent developments, upward trends in synchronisation are evident for all three Baltic countries, Malta, Poland, Slovakia and, to some extent, Slovenia. Cyprus clearly shows the highest and most stable level of correlation with the EU-15 cycle.

Graph VI.2: Average rolling business cycle correlations between old and new Member States



Source: Commission services

Graph VI.3: Individual rolling business cycle correlations between old and new Member States



Source: Commission services

Taking the US cycle as a reference for the world cycle⁽⁵⁸⁾, average correlation of the new

Member States with global cyclical conditions proves to be significantly lower than with the EU-15 cycle (Table VI.4). Over the 2002-08 period, average correlation with the US cycle is at 21%, up from 8% in the 1995-99 period, but markedly lower than the 51% EU-15 benchmark. In contrast to the EU-15 results, Hungary and Poland (with Cyprus) stand out as countries with the highest bilateral correlations with the global cycle measure.

Table VI.4: Business cycle correlation: new Member States with the US

	95-08	95-01	02-08
BG	0.19	0.25	0.02
CY	0.51	0.46	0.64
CZ	-0.16	-0.28	0.22
EE	-0.03	-0.23	0.39
HU	0.67	0.71	0.64
LT	-0.21	-0.31	0.03
LV	0.20	0.10	0.32
MT	na	na	-0.02
PL	0.54	0.49	0.59
SI	0.23	0.31	0.17
SK	-0.72	-0.74	-0.70
NMS	0.12	0.08	0.21

Note: NMS average (unweighted) excluding Malta
Source: Commission services

Leads and lags

The second synchronisation measure is based on the lead or lag for which the correlation between two cycles is maximised⁽⁵⁹⁾. Thus, a value of zero indicates that correlation is highest for a contemporaneous relationship, while negative values indicate a lead and positive values a lag of new Member States' cycles with respect to the EU benchmark.

On average, new Member States' cycles appear to be in sync with the EU-15 cycle, particularly in the more recent sub-period since 2002 (Table VI.5). Focusing on this latter period, significant time shifts (more than two quarters) are perceivable only for Hungary (leading the EU cycle), Lithuania, Malta and Slovakia (lagging). With respect to the US cycle, the countries are on average lagging slightly behind, increasingly so

⁽⁵⁸⁾ The results are qualitatively unchanged when the OECD aggregate is taken as a reference for the world cycle.

⁽⁵⁹⁾ Correlations are calculated for a maximum time shift of three quarters. Therefore, a value of 3 indicates a lag of three quarters or more.

in the second sub-period⁽⁶⁰⁾. This indirectly confirms the common finding that the US is leading the EU cycle. Together, the analysis of leads and lags provides further evidence of a stronger business cycle synchronisation with the old Member States than with global developments.

Table VI.5: Leads and lags of new Member States' business cycles versus old Member States and the US

	old Member States			United States		
	95-08	95-01	02-08	95-08	95-01	02-08
BG	1	0	2	3	3	3
CY	1	1	0	3	3	3
CZ	3	3	0	3	3	2
EE	1	1	-2	3	2	3
HU	-3	-2	-3	0	0	-1
LT	3	3	3	-3	-3	-1
LV	1	1	0	3	3	3
MT	na	na	3	na	na	3
PL	-1	-1	-1	0	1	-1
SI	0	-2	1	3	3	3
SK	3	3	3	-3	-3	3
NMS	1	1	0	1	1	2

Note: NMS average (unweighted) excluding Malta
Source: Commission services

Volatility of cycles

Business cycle volatility is measured by standard deviations, expressed in relative terms to the EU-15 aggregate. A decrease in the relative volatility can be interpreted as a diminishing role of country-specific disturbances.

In line with global and European trends, there has been a trend towards less volatility in the majority of countries, with the average volatility measure declining from 275 in 1995-2001 to 199 in 2002-08 (Table VI.6). Over the full sample, relatively low volatility is observable for Cyprus, Hungary, Poland and Slovenia. Over the more recent sub-period, Bulgaria, the Czech Republic and Malta likewise display below-average volatility.

In interpreting the magnitude of the values, it has to be borne in mind that a single cycle is (almost) necessarily more volatile than an aggregate of several country cycles.

⁽⁶⁰⁾ The same result is obtained when the OECD cycle is taken as global reference.

Table VI.6: Volatility of new Member States' cycles

OMS=100	95-08	95-01	02-08
BG	570	709	169
CY	158	172	129
CZ	251	303	114
EE	374	411	304
HU	155	134	186
LT	310	354	205
LV	308	246	394
MT	na	na	159
PL	143	137	153
SI	110	87	142
SK	199	200	193
NMS	258	275	199
OMS	159	162	140

Note: Volatility measured by standard deviation relative to OMS.
NMS average (unweighted) excluding Malta
Source: Commission Services

Looking at some individual old Member States for comparison, the relative standard deviation of Germany to the EU-15 is 136, while for Belgium it is 272 over the full sample. On average across all EU-15 countries, it is 159. Between the first and the second sub-period, the distance between old and new Member States' cyclical volatility has shrunk, indicative of a diminished role of country-specific shocks. While, since 2002, the volatility of many new Member States' cycles is about the same as in EU-15 countries (Cyprus, the Czech Republic, Malta, Poland, Slovenia), it remains significantly higher on average.

Persistence of cycles

The last measure is the first-order autocorrelation coefficient of business cycles, used as a rough but straightforward summary measure of their persistence (OECD, 2002). The rationale for this measure is that the dynamic effect of any shock depends on the degree of persistence of the series, with shocks having a longer-lasting effect on highly persistent series. Consequently, a similar degree of persistence is important from the perspective of business cycle synchronisation⁽⁶¹⁾. Furthermore, noisy series

⁽⁶¹⁾ This simple measure is not suitable for identifying individual (supply and demand) shocks and transmission mechanisms, but rather reflects the similarity of the aggregate effect of the various shocks and their transmission. An important caveat is that the persistence of the business cycle is often linked to underlying structural and institutional features of the economies, including size and openness.

tend to show lower autocorrelation. Therefore, low persistence compared to other countries can also point to the relative importance of country-specific shocks.

Table VI.7: Persistence of cycles in the new Member States

	95-08	95-01	02-08
BG	0.85	0.85	0.88
CY	0.93	0.93	0.92
CZ	0.90	0.90	0.80
EE	0.90	0.89	0.91
HU	0.91	0.89	0.93
LT	0.91	0.92	0.81
LV	0.92	0.88	0.94
MT	na	na	0.83
PL	0.83	0.74	0.87
SI	0.91	0.87	0.93
SK	0.90	0.87	0.95
NMS	0.89	0.87	0.89
OMS	0.90	0.89	0.89

Note: First order autocorrelation coefficients. NMS and OMS are unweighted averages. NMS excludes Malta
Source: Commission service

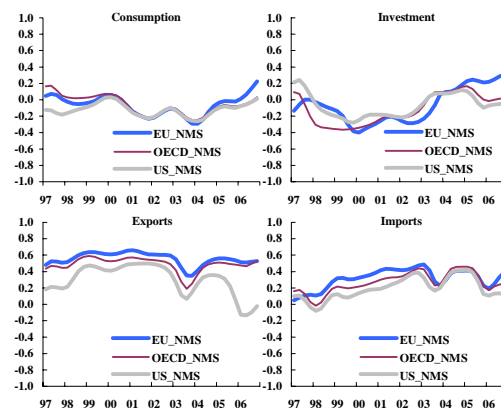
Tracking the persistence measures of new Member States' business cycles shows that from 1995-2001 to 2002-2008, cyclical persistence appears to have increased slightly on average (Table VI.7). While average persistence across new Member States was slightly lower than across EU-15 countries in the first sub-period, it rose to the average EU-15 level (of 0.89) thereafter, implying that the aggregate effect of symmetric shocks and their transmission has become more similar. Given that the degree of persistence in a given economy is linked to underlying structural features such as size and openness, it is difficult to draw country-specific conclusions from the table. One remarkable development seems to be the significant increase in persistence of the Polish business cycle in the second sub-period, indicative of the diminished importance of country-specific disturbances.

2.2.2. Synchronisation of expenditure and sectoral components

This section extends the correlation analysis to the major expenditure and sector components of GDP⁽⁶²⁾. Looking at expenditure components

first, consumption appears clearly less synchronised than GDP, thereby confirming the "consumption-correlation puzzle" (Backus, Kehoe and Kydland, 1992). According to conventional macroeconomic reasoning, consumption should be more closely related than output across financially integrated countries. However, average correlation with the EU-15 is close to zero across the sample (Table VI.8). At the individual country level, this hides some significantly positive (Cyprus, Lithuania, Malta) and negative (Estonia, Slovakia) correlations. While there is a slight upward slope in mean correlation in recent years (Graph VI.4), synchronisation has not increased on average over the two sub-samples.

Graph VI.4: Rolling correlations of demand components in new and old Member States



Source: Commission services

Reflecting the apparent dissociation of consumption cycles across countries, correlation with respect to the EU-15 is not higher than with respect to the US or OECD. So the data do not support the hypothesis of e.g. Darvas and Szapáry (2008) that with increasing financial integration the "consumption-correlation puzzle" would eventually be solved⁽⁶³⁾.

data are available from 2000 only, is likewise not included in any of the averages.

⁽⁶³⁾ Imbs (2004b) shows that a persistent positive gap between GDP and consumption correlation can be explained by the fact that financial integration empirically raises GDP correlation as much as it raises consumption correlation. While this explains the persistence of the consumption-correlation puzzle, it cannot explain why in the new Member States the gap

⁽⁶²⁾ Bulgaria and Romania had to be excluded from the analysis due to lack of quarterly data. Malta, for which

Table VI.8: Correlation of expenditure components in new Member States with old Member states

	CY	CZ	EE	HU	LT	LV	MT	PL	SI	SK	average
95-08	0.55	-0.16	-0.57	0.02	0.65	0.18	na	-0.36	0.21	-0.69	-0.02
95-01	0.64	-0.17	-0.83	0.23	0.75	0.04	na	-0.42	0.25	-0.77	-0.03
02-08	0.31	-0.18	0.25	-0.59	0.49	0.41	0.65	-0.18	-0.17	-0.37	0.00
Investment											
95-08	0.13	-0.05	-0.38	-0.09	-0.52	-0.01	na	0.41	0.03	-0.58	-0.12
95-01	0.07	-0.17	-0.47	-0.04	-0.61	-0.15	na	0.30	0.07	-0.73	-0.19
02-08	0.29	0.17	-0.11	-0.15	-0.22	0.45	0.45	0.78	-0.03	0.02	0.13
Exports											
95-08	0.65	0.80	0.83	0.82	-0.06	0.40	na	0.51	0.85	0.12	0.55
95-01	0.63	0.83	0.86	0.85	-0.02	0.41	na	0.61	0.92	0.07	0.57
02-08	0.67	0.73	0.77	0.77	-0.13	0.44	0.50	0.21	0.71	0.23	0.49
Imports											
95-08	0.48	0.29	0.68	0.74	-0.47	-0.06	na	0.28	0.70	0.08	0.30
95-01	0.45	0.35	0.62	0.79	-0.49	-0.23	na	0.18	0.90	-0.16	0.27
02-08	0.50	0.14	0.90	0.66	-0.47	0.43	0.69	0.48	0.39	0.61	0.40

Source: Commission services

New Member States' investment displays a slight upward trend over the sample in terms of correlation with the old Member States, but not with the US or OECD. Nevertheless, the level of correlation remains low. Only Poland and, to a lesser extent, Latvia and Malta display a significantly positive correlation in 2002-2008.

The correlation of exports is quite high and stable over the sample, exceeding the correlation of GDP⁽⁶⁴⁾. At the country level, most countries display a significantly positive correlation, Lithuania and Slovakia being the major exceptions. While Poland displays a fall in correlation in the second sub-period, an analysis of rolling correlation coefficients shows that after temporary de-synchronisation with the EU in 2000-03, export cycles have more recently become increasingly synchronised again.

Import cycles exhibit similarly smooth developments, albeit around an increasing trend and at a slightly lower level⁽⁶⁵⁾. The most significant increases in import correlation are discernible for Estonia, Latvia, Poland and Slovakia, while correlations are lower in the second sub-period for the Czech Republic and Slovenia. Altogether, the results point to foreign

trade as the main channel through which synchronisation occurs. A comparison with the US and OECD shows that trade synchronisation is higher with the EU-15, particularly for exports.

The breakdown of GDP into its major sectoral components, (Table VI.9) i.e. gross value added in industry and services, shows that on average across countries correlation of industrial output has been rather stable over the sample, with a slight increase since 2004. The Czech Republic, Hungary, Poland, Slovenia and Estonia show high positive correlations overall, though there were declines in the second sub-period in all but the Czech Republic, where correlation increased further to a high level of 75%. The correlations of value added in services broadly mirror the developments in GDP correlations, reflecting the dominant weight of the services sector in the economy. At the country level, the high value of services correlation in the 2002-08 period is mainly due to Cyprus, Estonia, Latvia, Slovenia and Slovakia, with values around 0.8.

between output and consumption correlations is actually widening, with the former increasing and the latter remaining unchanged.

⁽⁶⁴⁾ The slight fall in the second sub-period seems to reflect the above-mentioned general pattern of temporary de-synchronisation in the early upswing phase of the business cycle.

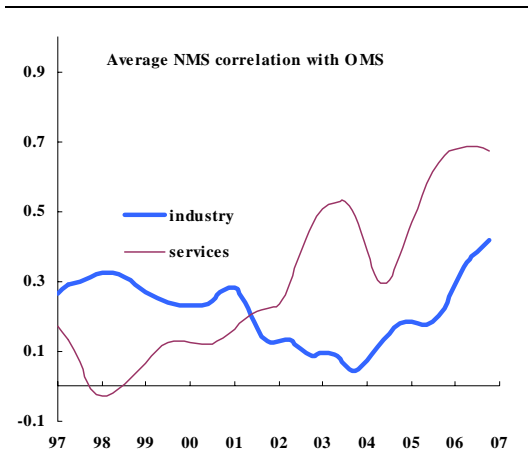
⁽⁶⁵⁾ The lower level is explicable by the fact that imports are generally more sensitive to domestic shocks.

Table VI.9: Correlation of sectoral output cycles in new Member States with old Member states

	CY	CZ	EE	HU	LT	LV	PL	SI	SK	average
Industrial production										
95-08	-0.14	0.60	0.49	0.63	-0.19	0.05	0.50	0.71	-0.51	0.24
95-01	-0.02	0.55	0.51	0.73	-0.18	0.09	0.67	0.78	-0.83	0.26
02-08	-0.42	0.75	0.39	0.25	-0.20	-0.11	0.24	0.60	-0.12	0.15
Services										
95-08	0.87	-0.03	0.01	0.33	-0.09	0.74	0.40	0.31	0.07	0.29
95-01	0.91	-0.22	-0.32	0.20	-0.04	0.63	0.47	0.05	-0.13	0.17
02-08	0.80	0.25	0.83	0.52	-0.24	0.94	0.25	0.83	0.76	0.55

Source: Commission services

Graph VI.5: Rolling correlations of sectoral output in new and old Member States



Source: Commission services

The analysis of sector developments points to an increasing synchronisation of service sector activity between old and new Member States (Graph VI.5). In contrast to most previous studies, correlation of activity in services has on average been found to be higher than in industry since around 2002.

3. ESTIMATING THE RELATIONSHIP BETWEEN SYNCHRONISATION AND ECONOMIC INTEGRATION

This section presents econometric estimates of the relationship between business cycle synchronisation and various measures of economic integration. Following the seminal paper by Frankel and Rose (1998), many studies have confirmed the finding that countries with more intense trade ties have more similar business cycles. However, to disentangle the effect of inter-industry trade from that of intra-industry trade, a measure of specialisation has to be added to the equation. Imbs (2004a)

concludes that the overall effect of trade on synchronisation is strong, but a sizeable part is found to work through intra-industry trade. Moreover, similar specialisation patterns are found to have a sizeable direct effect on business cycle correlation. Fidrmuc (2004) finds that the link between cyclical synchronisation and trade intensity becomes insignificant once regressions are augmented by additional structural variables. In a similar vein, Inklaar, Jong-A-Pin and De Haan (2008) find that the effect of trade intensity on synchronisation is much smaller than previously reported, with other structural variables such as trade similarity, similarity of monetary and fiscal policies and degree of financial integration having an effect at least as strong. Artis, Fidrmuc and Scharler (2008) conclude that, while trade and financial flows tend to increase business cycle co-movements between countries, divergent fiscal policies and labour market rigidities delay the synchronization of business cycles.

Most of the literature analyses the determinants of business cycle synchronisation using a cross-section of OECD or euro-area countries. Traistaru (2004) analyses the transmission channels of synchronisation in a hypothetical euro area, enlarged by the eight Central / Eastern European countries. She finds structural similarity and bilateral trade intensity to be significantly and positively related to business cycle synchronisation. However, these results apply to country pairs including within-euro area and within new Member States combinations. The explicit determinants of synchronisation between old EU Member States on the one hand

Table VI.10: **Determinants of synchronisation: model results**

	Ordinary least squares		Instrumental variable	
	-0.009	-0.004	-0.044	-0.017
	(-0.27)	(-0.16)	(-0.92)	(-0.58)
Difference in trade structure (specialisation)	-0.24	-0.050	-0.346*	-0.092
	(-1.42)	(-0.45)	(-1.76)	(-0.75)
Dissimilarity of monetary policy	-0.167***	-0.071*	-0.156***	-0.066*
	(-3.58)	(-1.91)	(-3.23)	(-1.77)
Dissimilarity of fiscal policy	-0.02	-0.022*	-0.023	-0.022*
	(-1.26)	(-1.82)	(-1.28)	(-1.83)
Financial integration	0.443***	-0.105	0.471***	-0.094
	(2.63)	(-0.95)	(2.76)	(-0.84)
Dummy for LT and SK		-0.923***		-0.927***
		(-17.35)		(-17.22)
Hausman test (H0: OLS is consistent), p-value			0.13	0.36

Note: trade intensity: sum of bilateral trade flows (exports and imports) divided by total trade flows of the country pair, average over 1999-2007 (expected sign: +); difference in trade structure: sum of absolute bilateral differences in export shares across 99 product categories (CN 2 digit commodity groups), average over 1999-2007 (expected sign: -). To the extent that the export structure reflects that of total industry, the measure can also be viewed as a measure of industrial specialisation. Dissimilarity of monetary policy: absolute bilateral differences of short-term nominal interest rates, average over 1999-2007 (expected sign: -); dissimilarity of fiscal policy: absolute differences of cyclically adjusted budget balance, average over 1999-2008 (expected sign: -); financial integration: bilateral correlations of quarterly growth in stock-indices, computed over 1999-2008 (expected sign: +). Constants included; t-statistics, consistent for heteroscedasticity in parentheses; ***,** denote significance at 10, 5 and 1 percent levels. The following variables were included in the instrument variables estimations: distance between capitals, common border dummy, population and real GDP to control for size effects.

Source: Commission services

and the new Member States on the other have not yet been sufficiently addressed⁽⁶⁶⁾.

The estimation results are based on 165 cross-section observations of bilateral correlation coefficients between new and old Member States⁽⁶⁷⁾. Bilateral trade intensity turns out to be insignificant in explaining pair-wise output correlations (Table VI.10). The results suggest that the Ordinary Least Square estimation is consistent and close to the Instrumental variables results⁽⁶⁸⁾. The trade specialisation measure is significant at the 10% level in the Instrumental Variables estimation approach. Differences in monetary policy appear to have a significantly negative impact on synchronisation, even after correcting for the markedly lower level of synchronisation of Lithuania and Slovakia with EU-15 countries via a dummy variable. While

financial integration likewise seems to be significantly (positively) related to output correlation, this result is not robust to the inclusion of the dummy for the two least synchronised countries. Finally, differences in fiscal policy are estimated to have a significant negative impact on output synchronisation, at least after correcting for the low level of synchronisation of Lithuania and Slovakia.

4. SUMMARY AND CONCLUSIONS

While new and old EU Member States can be characterised by a fairly high degree of integration, recent developments in trade integration and structural similarity are ambivalent. The share of new Member States' exports going to the old Member States has been decreasing in recent years, thus exposing them more to non-EU demand shocks. Moreover, there are remaining or, in real terms, even increasing structural differences between new and old Member States. On the other hand, the quality of trade flows has become more homogeneous, indicative of more intra-industry trade that is expected to promote a symmetric propagation of shocks.

The empirical analysis points to a preferential degree of synchronisation of the new Member

⁽⁶⁶⁾ This is hampered by limited data availability for the new Member States and by the fact that the countries have been undergoing important structural changes and catching-up, thus rendering the estimations in all probability less robust than when comparing cross-sections of developed countries.

⁽⁶⁷⁾ Correlations, computed on filtered quarterly GDP data over 1999-2008, are transformed using Fisher's z-transformation to ensure normality, see Inklaar, Jong-A-Pin and De Haan (2008) for details. As before, Romania had to be excluded from the analysis.

⁽⁶⁸⁾ Endogeneity of trade was tested using the Hausman (1978) test.

States with the old Member States as compared to the global business cycle. Synchronisation, as measured along four different dimensions, also seems to be rising over time. The analysis of expenditure components suggests that fairly synchronous swings in trade flows contribute most to the synchronisation of overall output in the enlarged EU. The puzzle of low consumption correlation remains. At the sector level, services are becoming increasingly synchronised.

For two of the largest countries, Poland and Hungary, the level of correlation with the old Member States over the past seven years is below new Member State average and lower than correlation with the US. Yet, looking at very recent developments in rolling correlations, an increase in correlation (or an already very high level) is observed for the large majority of countries, including Poland. Looking at all synchronisation measures together, the findings across countries are broadly in line with previous studies: Cyprus, the Czech Republic, Malta, Poland and Slovenia are characterised by a relatively high level of synchronisation with the EU-15. Apart from extreme volatility in the first half of the sample, Bulgaria likewise seems to be well-synchronised.

Hungary, however, scores relatively low on the analysed dimensions of cyclical synchronisation compared to the earlier findings in the literature, which were based on shorter data samples. Arguably, the substantial fiscal slippages in recent years have contributed to the idiosyncratic behaviour of the Hungarian business cycle.

Among the Baltic countries, Estonia and Latvia are found to be quite highly correlated with the EU-15, but high cyclical volatility remains a common feature. Estonia's noticeable rise in GDP correlation in the post-2002 period appears to be driven by services, while the industry sector too maintains a reasonably high correlation. Latvia's high GDP correlation across the sample is also driven by services, while the industry sector remains unrelated to EU-15 developments. Only Lithuania keeps showing low or even negative correlation across the board, though the rolling correlations point to a strong upward trend in very recent years. Similar results apply for Slovakia, where the very recent positive developments in GDP correlation appear

to be due to a strong increase in services correlation since 2002. The latter two countries, together with Hungary, also score lowest on the lead/lag criterion.

Looking at the determinants of cyclical synchronisation using an econometric model, synchronisation between new and old EU Member States does not seem to be bolstered by higher trade intensity as such. However, there is some evidence that the similarity of trade patterns matters for business cycle synchronisation. Together, this suggests that intra-industry rather than total trade is supportive in synchronising the new with the old EU Member States. Moreover, it appears that similar monetary policy and, to a lesser extent, fiscal policy and financial integration are important factors in explaining why some countries are better synchronised with the old Member States than others.

Chapter VII

Enlargement and the EU policy framework

SUMMARY OF MAIN FINDINGS

Part of the success in the catching-up process can be attributed to the EU policy framework which the new Member States had to adopt as part of the Accession Treaty. The essential building blocks of the EU governance mechanism are: the rules relating to the Single Market, the Lisbon agenda to foster structural change, fiscal surveillance and Economic and Monetary Union to ensure macroeconomic stability and, lastly, the efficient use of EU transfers of which the new Member States are the main beneficiaries. Respect for the EU economic and policy framework leads to a level playing field in 27 countries which benefits consumers and firms who have access to a large unified market governed by the same set of rules.

On the whole, the Single Market regulations have been quickly implemented in the new Member States, which have a similar transposition deficit and fewer infringement cases on average than the old Member States as well as a higher share of openly announced public procurement (5.7 % of GDP against 3.2 % of GDP). As a result, because of increased competition and a catching-up effect (which naturally make the low prices in the new Member States increase), price dispersion in the EU as a whole measured by the coefficient of variation has decreased from 38.7 % in 1995 to 24.5 % in 2007 for comparative goods including indirect taxes. However, there is still a distance from the low level of price dispersion of 11 % observed in 2007 if only the old Member States are considered.

The heterogeneity of the EU increased after enlargement, and this presents a challenge in terms of the management of the internal market. However, greater benefits are also to be expected from the efficiency gains to be made thanks to increased competitive pressure, and from the integration of new countries with different comparative advantages, so that the EU is better placed to respond to globalisation. Enlargement enhances the attractiveness of the EU as a place to invest and strengthens its ability to set benchmarks and bring about the convergence of rules worldwide. This facilitates exports by European firms and ensures that imports meet EU standards.

On their way to becoming EU members, the new Member States have made significant progress in implementing structural reforms. This endeavour has continued after accession in the context of the Lisbon strategy for growth and jobs. In view of the diversity of economic structures in the EU, which has been further accentuated by enlargement, and also the fact that many structural reforms traditionally fall within the remit of national governments, a soft approach to co-ordination is followed, relying on tools such as headline targets, guidelines, peer review, benchmarking, etc. The new Member States are now fully integrated into the Lisbon strategy and have gained from the putting in place of institutional arrangements that facilitate coordinated and coherent policy-making in the area of structural reforms. The evidence shows that the overall pace of reform in the new Member States continues to be substantial, though some indicators point to signs of reform fatigue.

Much remains to be done. There are structural weaknesses in a number of areas and the policy efforts need to concentrate on these areas if they are to have a tangible impact on growth and jobs. This is particularly relevant in the current economic crisis, which is already taking its toll through labour shedding and gloomy growth prospects. The microeconomic area appears to be the one where underperformance is much more acute in new Member States than in the old Member States. The main underperforming policy areas are the competitiveness framework, R&D, and innovation and ICT. Weaknesses are also apparent in the area of business environment and business start-ups. This is broadly in line with the finding that the new Member States still lag behind considerably in capital deepening and total factor productivity. In order to sustain the catching-up process, attention needs to be paid to improving conditions in the policy areas that contribute to boosting productivity. While in some areas related to labour markets the new Member States perform rather well, there are also significant weaknesses. In particular, active labour market policies are underdeveloped and labour markets often exhibit high segmentation, regional disparities and skill mismatches. There is, therefore, a need for a comprehensive approach to structural reform if the existing growth bottlenecks are to be tackled effectively.

Safeguarding macroeconomic stability implying low inflation, a sustainable current account of the balance of payments and solid financial institutions is a concern for the new Member States. In this context, consolidation of public finances in structural terms is key to cool off the strong demand dynamics, especially when the exchange rate is no longer available as an instrument of adjustment. Failure to do so can make the unwinding of imbalances more protracted. Some progress has been made in this area as only one of the six countries that joined in 2004 the EU with an excessive deficit, did not manage to correct it (namely Hungary). Nevertheless, looking beyond any such favourable developments in headline deficits, several new Member States have not yet reached a reassuring structural balance. This limits the room for manoeuvre for fiscal policy to respond to the unfolding economic slowdown and may lead quickly to a return of excessive deficits.

In the long term, there does not appear to be a trade-off between the need for budgetary rigour and creating space for growth-enhancing expenditure. Strong growth increases the debt-carrying capacity of an economy, while sustainable public finances are conducive to higher long-term growth. Potential tensions between the two roles of public finances may also be resolved by an appropriate composition of expenditure and revenue. In this respect the relative shares of investment spending and government expenditures on wages and administration compare favourably with those in the old Member States, although spending on education and research is relatively low. Finally, the fact of having to observe the EU fiscal surveillance mechanism did not prevent the new Member States from combining the reduction of their deficits with appreciable levels of public investment. On the contrary, it boosted fiscal governance in the new Member States, even though it is not yet up to the level of the old Member States, and thus contributed to growth. Indeed, countries with well-developed fiscal rules do perform better than others.

With respect to the process of euro area enlargement, the 12 new Member States from widely differing starting points, have, over the last five years, followed various strategies tailored to their own capacities and needs. While

some of them made significant progress and joined the euro area, some of the others made less progress or even went backwards. The four successful entrants to the euro area – Slovenia (2007), Cyprus and Malta (2008) and Slovakia (2009) – formulated their target dates and strategies for the adoption of the euro in good time and successfully met the conditions for joining the group. The Baltic countries and Hungary in 2004, at the forefront of those new Member States wanting to introduce the euro, had to postpone their timetable for adopting the euro because of the difficulties in meeting the convergence criteria (the former because of the price stability criterion, and the latter, among other things, due to fiscal slippages). Other countries have been more circumspect about their intentions to adopt the euro. Poland waited until September 2008 to announce a target date for adopting the euro in 2012. The Czech Republic has called off the initial 2009-2010 target date, due to delays in fiscal consolidation. The approach of Romania and Bulgaria towards adopting the euro seems to be more gradual at the present time.

Adoption of a single currency makes it possible to fully reap the benefits of a Single Market, as exchange rate volatility is eliminated, risk premia and transaction costs are reduced and price transparency is enhanced. However, experience shows that adopting the euro is not a ‘free lunch’, and the exercise needs careful preparation. In the shorter term, the main challenges for the new Member States are to deal with the fall-out from the financial crisis, to maintain progress towards convergence and not derail policy efforts. Taking a longer-term view, policies to prepare for participation in the euro area, in particular in the area of product and labour markets and on the macro-prudential dimension, are key to ensuring a smooth adjustment to economic and financial shocks.

An efficient use of EU funds can also contribute to the catching-up process by the new Member States. Transfers to Member States from the EU budget represented about 0.8 % of EU-27 GDP in 2007, of which 20% was allocated to the new Member States. This allocation is due to be increased to 35 % in the ongoing Financial Perspective 2007-2013, above their share in EU GDP (7 %) or EU population (20 %). The

amounts transferred to the new Member States are considerable - representing 2.1 % of their GDP in 2007 - and are expected to rise to 3 % of GDP by 2013. However, they should not be unbearable for the old Member States as they stood at 0.2 % of EU-15 GDP in 2007, with only a slight increase to 0.3 % of GDP in the coming years.

Since accession, the new Member States have paid a contribution to the EU budget of somewhat less than 1 % of GDP, like the old Member States. When transfers are taken into account, the new Member States as a group are net recipients from the EU budget to an amount of 1.3 % of GDP in 2007 while, on average, the old Member States were net contributors in 2007 with about 0.1 % of GDP.

EU transfers make a contribution to growth and convergence if they are properly targeted. Rather than spreading funds, a focus on human capital and infrastructure concentrated on a few growth poles seems to be most effective, in combination with an improvement in the transmission of technology and innovation from the fast growing agglomerations to the poorer regions. Furthermore, the efficiency of the EU Funds is greatly enhanced if they go together with structural reforms, foreign direct investment, a stability oriented macroeconomic policy and sufficient administrative capacity to handle the transfers correctly. The EU policy framework, including the Lisbon process and the Stability and Growth Pact, as well as specific rules concerning EU transfers on co-financing, additionality and prioritisation should optimise the impact.

Simulations using the Commission's QUEST III model suggest a permanent long-term gain in output of as much as 4 %, which is maintained even when the inflow of EU funds stops. This assumes full absorption of the scheduled EU commitments. In the short run, some crowding-out may occur as it takes time to raise production capacity and, initially, the inflowing EU transfers will exceed the GDP impact.

1. THE SINGLE MARKET

The enlargement of the European Union represents a challenge to both the old and the new Member States, implying opportunities and challenges for the Single Market. On the one hand, it has increased heterogeneity inside the EU, as the new Member States have a lower GDP per capita and different policy concerns than the EU-15 Member States. This makes the management of the Single Market more difficult. On the other hand, enlargement also offers new economic opportunities to the EU as a result of the extension of the Single Market to nearly 500 million inhabitants and of the integration of new members with different competitive advantages. This increases the benefits to be expected from the Single Market in terms of efficiency gains and business developments.

This chapter attempts to draw the main implications of the Single Market policy for the new Member States at the light of the 2007 Single Market Review (European Commission, 2007a). It documents the degree of implementation of the Single Market in the new Member States and tries to assess the economic impact of the enlarged Single Market for the EU and for the new Member States.

1.1. MAIN LESSONS FROM THE SINGLE MARKET REVIEW

The Single Market, with the four freedoms, benefited the European economy, contributing to create jobs and prosperity by promoting innovation and productivity growth. However, the Single Market Review carried out by the Commission in 2006-2007 to assess the functioning of the Single Market concluded that the potential of the Single Market has not been fully exploited. In particular, the Single Market has not contributed sufficiently to the development of new areas of activities in sectors with a high technology and knowledge content, or to the expansion of activities in fast growing markets. Finally, the adjustment costs associated with market opening were more clearly understood by consumers and SMEs than the benefits of the Single Market. Therefore, the Single Market Review came to the following conclusions: there is a need to (i) put more emphasis on the benefits of the Single Market for

consumers and SMEs, (ii) better take into account the external dimension when defining new Single Market rules (iii) create a Single Market for knowledge, and (iv) encompass a strong social and environmental dimension for future Single Market policies. The following sections review the results in these areas for the new Member States.

1.1.1. Deliver more results for citizens, consumers and SMEs

A large number of achievements of the Single Market are already contributing to better functioning and more innovative markets that deliver higher quality goods and services for consumers at lower prices. However, the lack of effective competition and fragmentation in certain markets prevent that the Single Market can effectively respond to the consumers expectations and concerns. Moreover, the Single Market has to continue to improve framework conditions for businesses by a reduction of the constraints on businesses operating in the common European marketplace, with a particular focus on the small and medium-sized enterprises (e.g. European Commission, 2008b). In fact, whereas large operators have been very successful in accessing the opportunities of the Single Market, small and medium-sized businesses often find the Single Market fragmented and difficult to penetrate. Differing approaches to taxation and the difficulty of finding unanimous support for a common approach to rules on taxation can also act as a brake on SMEs penetration of the Single Market.

In a recent "Survey of the Observatory of European SMEs" (Eurobarometer, 2007b), a certain number of new Member States (Czech Republic, Slovakia, Slovenia, Lithuania, Poland, and Romania) have been identified among the countries where business constraints were more felt than the EU average, but where the situation had not been deteriorating further. Concerning the Single Market, almost 40% of managers in the new Member States (compared to a third in the EU) indicated that the opportunities of the Single Market were not relevant to them, either because they only operate domestically, or for some other reason. Among the SMEs doing business elsewhere in the EU, a large majority of

them appreciated some important features of the Single Market. The most important feature in this respect is the Single Market legislation, including the harmonisation of technical standards which 46% of the new Member State enterprises consider to have a significant importance for their business activities. The use of a same currency is the second most important Single Market feature for enterprises in the New Member States, followed by the absence of border controls. The possibility to hire workers from other EU Member States is seen as an important feature by only 17% of the enterprises in the 12 new Member States. A majority of enterprises also declared not to see any benefits for their enterprise from EU-wide harmonised standards replacing national regulations. Concerning competition, SME managers in the new Member States were more likely to report intensified competition than their colleagues in the old Member States.

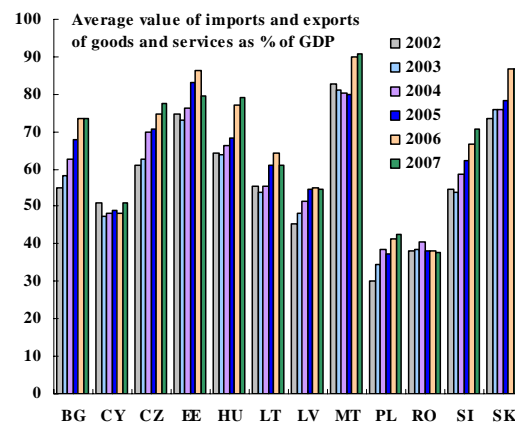
1.1.2. Take better advantage of globalisation

The Single Market is a powerful lever to reap the potential benefits of globalisation. This can be achieved via three channels: (1) it increases competitive pressure for EU firms, which prompts them to improve efficiency and to innovate and fosters competitiveness; (2) it contributes to the enhanced attractiveness of the EU as a place for investors and companies across the world; and (3) it enables the EU to take the lead in setting benchmarks and bringing about convergence of rules worldwide, facilitating exports by European firms and ensuring that imports meet the EU standards (with respect to labour law, health, product and food safety, environmental protection, public procurement, financial regulation and accounting).

Since the 1990s, in relation with their trade reorientation towards the West, the increased trade integration of the new Member States' economies was mainly with the old Member states. After the EU enlargement, the deepening of their trade integration was more among the new Member States but also with the rest of the world, which led to a further increase in their degree of market integration. In 2007 the degree of market integration (goods and services) ranged from nearly 38% of GDP (Romania) to

over 90% of GDP (Malta) (see graph VII.1.1.). The most integrated economies were Malta, Slovakia, Estonia and Hungary.

Graph VII.1.1: Market integration in the new Member States



Source: Eurostat, Commission services

The stronger growth in intra-EU trade compared to extra-EU trade indicates the on-going integration process of their economies into the enlarged Single Market (see graphs III.1.5 and III.1.6 in section III.1). A noticeable upward trend is also observed in the evolution of the intra-EU FDI inflows to GDP ratio over the 2002-2006 period (Graph IV.1.3 in section IV.1). Total FDI inflows to GDP ratio increased less rapidly, which may be an indication of the fiercer competition for attracting FDI with other emerging economies such as China and India compared. Nevertheless, the stronger integration of the new Member States' economies into the Single Market should unleash stronger competition forces that would lead their companies to increase efficiency, making them better able to compete in an increasingly globalised world.

1.1.3. A Single Market for knowledge and innovation

The structural change which occurred in Europe, namely the sectoral specialisation towards high-tech and service sectors, has raised policy attention towards the comparative advantage of Europe in developing and applying its knowledge base. The building of a Single Market for knowledge and innovation aims at increasing the overall effort devoted to R&D and other innovative activities as well as enhancing their

effects throughout the European economy in terms of value added growth, employment creation, and other major societal needs such as social cohesion, health, and environmental protection. The building of a European Research Area represents the major policy initiative aimed at ensuring the development of the fifth freedom, the freedom of knowledge in Europe.

Several arguments support the creation of a European Single Market for knowledge and innovation. Reducing barriers within the EU will increase both static and dynamic efficiency of research activities through a better exploitation of research paths as well as employment opportunities for researchers across Europe. Supporting cooperation between research centres, universities and firms will boost research investments; cross-border cooperation in R&D activities will allow economies of scale which, in turn, will facilitate innovative investments in high-tech sectors and frontier research where very high initial sunk costs often prevent technology initiative at the national level. On the supply side, a Single Market will support innovation by favouring economies of scale and enhancing competition in research activities between research centres and companies, especially in the capital-good sectors. On the demand side, a larger Single Market in technology-user sectors will provide stronger competitive incentives and greater rewards to innovation activities.

These arguments suggest that the building of a European Research Area will strongly benefit new Member States, which start from a weaker position in terms of national systems of innovation and overall R&D investment. A more integrated Single Market appears to have favoured the catching-up effect of new Member States in terms of R&D investments. Indeed, new Member States have witnessed high growth rates of R&D investment (above 10%) since their accession (period 2004-2006) compared to a stationary growth rate of R&D investment at the EU-27 level over the same period. However, R&D intensities appear stable over time and across countries due to the high GDP growth recorded in new Member States. Indeed, R&D investment in the new Member States represents only 0.8% of total GDP in 2006 compared to an overall figure of 1.84% for the EU-27.

1.1.4. Encompass a strong social and environmental dimension

It has been recognised that market opening is partly resisted since it is associated with adjustment costs. Therefore, future Single Market policy should take account of the social and environmental implications of market opening, and must be accompanied by measures that enable all citizens and businesses to take advantage of new opportunities. This will certainly be more difficult for the new Member States.

1.2. DEGREE OF IMPLEMENTATION OF THE SINGLE MARKET IN THE NEW MEMBER STATES

This section examines the degree of implementation of the Single Market in the new Member States on the basis of several indicators (Single Market Scoreboard, biannually updated), such as the degree of transposition of Single Market directives and the number of infringement cases. This allows assessing the timeliness of the transposition of Single Market rules by the Member States, as well as the correctness of their application. Moreover, public procurement indicators can be used to see to what extent the new Member States have opened up their public procurement markets.

In general, the deficit in the transposition of Single Market directives and also the number of infringement procedures are lower in the new Member States than the EU average. Also in terms of the degree of openness of public procurement the new Member States fare better

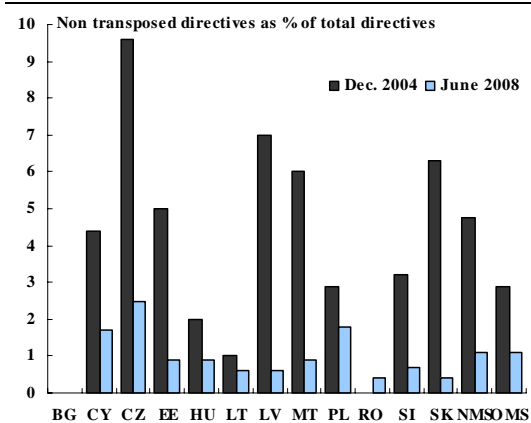
1.2.1. Transposition

The main success factors of good transposition performance include a good internal coordination, timely action/early preparation and accrued political attention and clear political priority. In general, the deficit in the transposition of Single Market directives is lower in the new Member States than the EU average. New Member States have stepped up their efforts considerably to ensure timely transposition of Single Market legislation. Only one year after the European Heads of State and Government agreed

on the future transposition deficit target of 1%, the 2008 edition of the Single Market Scoreboard shows that nine new Member States are already in line with this target (Bulgaria, Estonia, Hungary, Lithuania, Latvia, Malta, Romania, Slovenia and Slovakia). Since end 2004 the ten new Member States were capable to reduce their deficit by 3.66 percentage points, compared to a 1.88 percentage points' reduction in the old Member States.

The results already achieved by some new Member States, such as the Czech Republic with a reduction of the transposition deficit by 7.1 percentage points since 2004 (0.9 percentage points within the last six months), demonstrate that significant progress can be achieved within a short period of time if the political will is there and the authorities give it sufficient priority. However, further efforts are required, e.g. Cyprus' transposition deficit is the same as three years ago. As regards the increase of the Polish transposition deficit, the length of national legislation procedures and national political circumstances are important factors, which render timely transposition difficult especially in this country.

Graph VII.1.2: Transposition deficit



Notes: BG: no data available in 2004, 0 in 2008; RO: no data available in 2004; OMS, NMS: simple average
Source: Commission services

The Barcelona European Council of March 2002 agreed on a 'zero tolerance' target for directives whose transposition deadline is overdue by two or more years. Latvia and Slovakia are the only new Member States which achieved the target according to the most recent Single Market

Scoreboard. The Czech Republic is the only one improving its performance, although at the lower end of the ranking.

1.2.2. Infringements

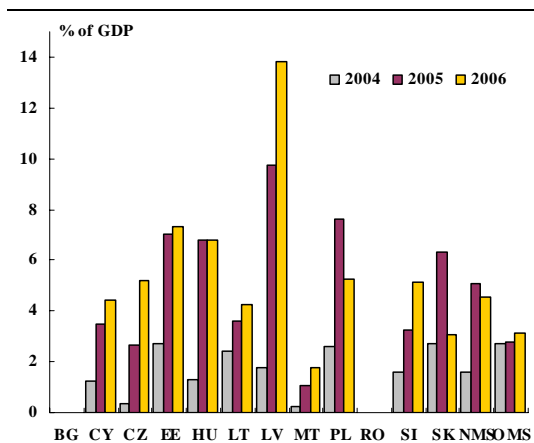
EU rules must not only be transposed into new national laws and regulations in each Member State, but their correct implementation and application have also to be ensured, which is crucial for the credibility of the Single Market. Looking at the number of Single Market related infringement procedures as proxy of the actual enforcement the new Member States continue to fare relatively better with lower numbers of infringement cases than the old Member States.

Concerning the sources of infringement against EU law, the highest number of cases is related to environmental rules (23%), followed by taxation and customs union rules (18%). Within the new Member States, Poland shows a significant number of infringement cases related to taxation as well as energy and transport, whereas Malta has high numbers of infringement cases related to environment, employment, and energy and transport.

1.2.3. Public procurement markets

The progress made in the functioning of the Single Market and in the degree of competition and market access in general deserves attention to concrete actions, such as the advancement in access to public procurement contracts which will enable procurement sensitive goods and services to move freely, thus ensuring value for money for taxpayers and consumers of public services and fostering the competitiveness of European suppliers in domestic and also world markets. Public procurement is subject to specific EU rules, which require that public procurement must follow transparent open procedures ensuring fair conditions of competition for suppliers (including non-discrimination of foreign suppliers). Looking at the value of public procurement which is openly advertised as a percentage of GDP shows that, over the period 2004 to 2006, the new Member States have made significant efforts to open up their public procurement markets.

Graph VII.1.3: Value of public procurement which is openly advertised



Note: BG, RO: no data available
Source: Eurostat (Structural Indicators)

Latvia managed to attain the position of the most open public procurement market in the whole EU (13.8% of GDP in 2006 compared to 1.8% in 2004), but also Estonia (7.3% in 2006 compared to 2.7% in 2004) and Hungary (6.8% in 2006 compared to 1.3% in 2004) displayed significant progress. Access to the Maltese market is particularly difficult. Openly advertised public procurement started in 2004 at the lowest level within the EU as a whole (0.2%) and attained only 1.8% of GDP in 2006. These are, however, provisional findings which have to be treated with caution. The amount of data so far available is limited and might affect the reliability of the figures for the smaller of the new Member States⁽⁶⁹⁾.

1.3. IMPACT OF ENLARGEMENT ON THE SINGLE MARKET

The recent accession of twelve new Member States substantially increased the size of the Single Market, while constituting at the same time a challenge to its proper functioning. On the one hand, the accession of the Central and Eastern European countries has increased the pool of consumers and has provided firms with

additional opportunities to draw on a wider range of comparative advantages characterising the different Member States. This is a source of further dynamism and efficiency in the Single Market. On the other hand, while the economic changes induced by this enlargement have been absorbed quite smoothly and there is no evidence of disruptive impacts on the product and labour markets, the increased divergence among the EU-27 countries has augmented the risks of tensions within the Single Market.

The enlarged Single Market has become, despite the increased economic divergence since the 2004 enlargement among its current members, more integrated and dynamic (European Commission, 2006a). At the same time, EU accession has played a role in the rapid increase of trade openness in the new Member States. Owing to a significant lowering of real trade costs as a result from the further trade liberalisation (including tariffs, antidumping proceedings and other non-tariff barriers) intra-EU trade and FDI flows have increased significantly.

1.3.1. Mergers and acquisitions

Cross-border mergers and acquisitions (M&A) generally represent the major part of FDI. They essentially imply a pooling of assets or a reallocation of corporate control, through which firms want to achieve certain strategic goals. The motivations behind mergers may be very diverse, ranging from efficiency considerations and cost saving to firm-expansion or market access. Framework conditions, such as specific policies or the level of economic integration between countries obviously also affect the incidence of individual M&A, for example by influencing the decision between market entry through trade or direct investment in the form of an acquisition. The effects of mergers may also be diverse and consequential, ranging from technological spillovers to increased innovation, thus ultimately affecting economic performance.

⁽⁶⁹⁾ In addition, the regulations covering the structural funds ensure that procurement with EU funds will appear as openly advertised. This may show up as a spike in the period (2004-2006) particularly since 2004 data is only for the six months after accession.

Table VII.1.1: Mergers and acquisitions in the new and old Member States classified by region of bidding firm, 2000-2007

New Member States								
	2000	2001	2002	2003	2004	2005	2006	2007
Number of deals	1487	1131	828	821	561	687	746	895
<i>of which (in %):</i>								
Domestic	48.6	52.3	47.5	50.5	41.5	36.7	36.1	39.0
NMS	3.2	2.6	5.7	4.8	8.0	5.7	5.6	8.7
OMS	33.8	34.8	32.7	29.6	30.8	40.8	42.0	35.2
US	6.3	4.6	4.5	4.5	6.4	7.6	6.3	7.4
Asia	0.2	0.2	1.0	0.4	0.9	1.0	1.3	1.3
ROW	7.9	5.5	8.7	10.2	12.3	8.3	8.7	8.4
Value (€Bn.)	19.3	19.5	16.2	7.4	15.3	28.4	20.7	36.1
Old Member states								
	2000	2001	2002	2003	2004	2005	2006	2007
Number of deals	13208	10148	7837	8083	8527	8937	10283	10887
<i>of which (in %):</i>								
Domestic	68.9	69.0	70.5	70.5	69.2	65.8	66.3	64.6
NMS	0.1	0.3	0.2	0.1	0.3	0.2	0.3	0.4
OMS	19.2	18.5	16.5	15.0	15.0	17.2	16.7	18.5
US	6.5	5.9	6.1	6.8	8.0	7.7	7.5	7.3
Asia	0.6	0.8	1.0	0.9	1.1	1.7	1.4	1.5
ROW	4.6	5.5	5.7	6.6	6.4	7.4	7.8	7.7
Value (€Bn.)	1072.7	561.8	452.4	390.2	537.9	696.7	873.5	1127.0

Source: Thomson Reuters, Commission services

The examination of the evolution of mergers and acquisitions since 2000, in which firms from the new Member States have been targeted shows that the number and aggregate value of M&A in the new Member States have been steadily increasing over the past four years, after a contraction following the global M&A wave, which reached its crest in the year 2000 (Table VII.1.1). This development is similar in the old Member States, even if the frequency and aggregate value of M&A in the new Member States only represents a fraction compared to the old Member States.

While an enlargement effect is hard to identify *prima facie*, a decomposition of bidders by region of origin reveals interesting differences between the old and the new Member States. Indeed, while around two thirds of M&A in the old Member States were domestic deals, the majority of acquisitions in the new Member States are made by foreign buyers. For cross-border deals, the predominance of investors located in other EU countries is obvious: in 2007, in addition to domestic deals which represented 39% of M&A in the new Member States, 35% were targeted by firms located in an EU-15 country, while in around 9% of cases the bidding firm was located in another new Member State. Deals originating in the USA, Asia or

elsewhere in the world accounted for 17% of acquisitions only, a combined share that is comparable for new and old Member States. Within the new Member States, most M&A targets were located in Poland, the Czech Republic, Hungary and Romania.

The patterns of cross-border acquisition initiated by the new and old Member States also differ considerably. Firms from the old Member States invest more in the USA or in Asia, while firms in the new Member States focus on markets that are located closer to them.

The distinction between cross-border M&A deals and domestic deals reveals that for cross-border deals, manufacturing is the most targeted sector in both the new and the old Member States, accounting for 34% to 36% respectively (Table VII.1.2). A striking difference, however, is the relatively low share of cross-border acquisitions in the services sectors in the new Member States (43%) compared to the EU-15. That said, within the services sector the share of the finance, insurance and real estate sector is significantly higher in the new (20.5%) than in the old Member States (about 12%). The same is true for network industries, even though the new Member States' share is slightly lower (17%). As far as domestic deals are concerned, the main

Table VII.1.2: Sectoral classification of mergers and acquisitions in old and new Member States, 1998-2007

As % of total number of deals	Cross-border deals			Domestic deals		
	NMS	OMS	EU-27	NMS	OMS	EU-27
Agriculture, Forestry and Fishing	1.1	0.4	0.5	1.3	0.7	0.7
Mining	2.6	1.2	1.4	2.0	1.1	1.1
Construction	2.9	1.9	2.1	3.6	2.9	3.0
Manufacturing	33.9	35.7	35.4	36.5	28.4	28.8
Network industries	16.7	11.7	12.5	14.0	10.5	10.7
Services	42.9	49.1	48.1	42.6	56.5	55.7
<i>of which:</i>						
Wholesale Trade	4.8	6.9	6.6	4.6	5.8	5.7
Retail Trade	3.6	4.0	3.9	5.3	6.4	6.3
Finance, Insurance and Real Estate	20.5	12.4	13.8	15.8	15.3	15.3
Other Services	13.9	25.7	23.6	16.9	28.9	28.2
Public Administration	0.1	0.1	0.1	0.1	0.2	0.2
Number of deals	3585	17059	20644	4072	65905	69977

Source: Thomson Reuters, Commission services

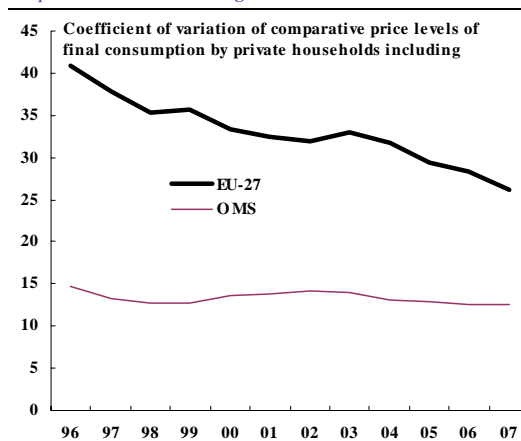
target sector in new Member States is manufacturing (36.5%). The services sector is much less targeted in new Member States (43%) than in the old Member States (57%).

1.3.2. Price convergence

The increased integration brought about by the Single Market is also expected to accelerate price convergence among EU Member States. This tendency is reflected in graph VII.1.4. which shows that the coefficient of variation of comparative price levels of final consumption (including indirect taxes) across the old Member States has decreased from 14.7% in 1996 to 12.6% in 2007. In the EU-27 progress has been even more remarkable as the new Member States become increasingly integrated with the rest of the EU and progressively adopt the Single Market acquis. For the EU-27 the coefficient of price variation dropped from 40.9% in 1996 to 26.2% in 2007.

However, the enlargement of the Single Market to countries characterised by lower income per capita than that of the old Member States has generated two opposing forces simultaneously influencing the process of price convergence. On the one hand, the rise in competition in the Single Market exerts downward pressure on prices due to lower mark-ups of prices over marginal costs. On the other hand, the catching-up process of low income economies leads to a rise in the price levels and higher inflation over a transition period. The overall price level then tends to increase and affects the consumption and production pattern of the economies.

Graph VII.1.4: Price convergence between EU Member States

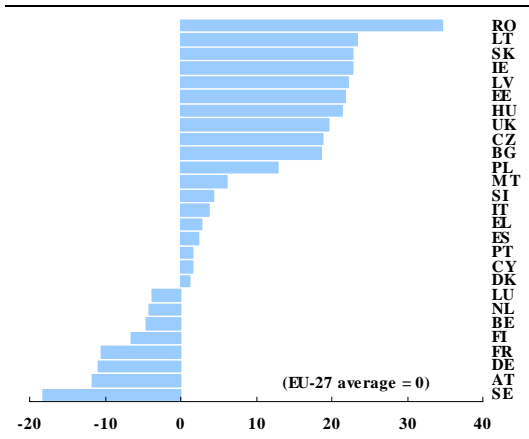


Source: Eurostat (Structural Indicators)

The examination of the variation in price levels⁽⁷⁰⁾ over the 1996-2007 period shows that across most high income old Member States inflation levels have declined and price levels converged downwards towards the EU-27 average (Graph VII.1.5.). This can be partially attributed to the Single Market which played an important role in the downward pressure exerted on prices as it allowed for tougher competition in product and factor markets across the EU.

⁽⁷⁰⁾ The variation in price levels is the difference in the comparative price levels between 1995 and 2007.

Graph VII.1.5: Price convergence: Comparative changes in price levels over time, 1996-2007



Source: Eurostat

In the new Member States and in lower income old Member States price levels have converged upwards towards the EU-27 average. While integration and competition enhancing reforms have had disciplinary effects on firms' pricing strategies, the increased trade with higher income economies, improved production quality and the Balassa-Samuelson effect associated with the income convergence have pushed price levels up.

Both competition and catching-up effects are taking place at the level of new Member States (Dreger et al., 2007). While catching-up appears to be the dominant effect, leading to an upwards convergence of prices, competition appears to have a dampening effect on the overall price increases (Box VII.1.1.).

Box VII.1.1: Examining price convergence in the enlarged Single Market

Dreger et al. (2007) examined whether price convergence in the enlarged Single Market will occur through upward price trends in the new Member States or downward trends in some of the old Member States. The examination of β -convergence (convergence towards the mean) and σ -convergence (reduction in price dispersion over time) confirmed the occurrence of price convergence in the enlarged Single Market. However, differences were found according to the homogeneity/differentiation of the products under consideration, as well as according to their tradability. Price convergence was found to be stronger in the case of more homogenous products and weaker when more differentiated products were analysed. In addition, the speed of convergence increases with the tradability of the product. As a result⁽¹⁾, the half life of shocks, which measures the number of years it takes for a shock of one unit to decrease by 50%, decreases with the tradability of the product. For example, shocks are expected to be removed by 50 percent after 2.1 years in the case of durables (the more tradable products), compared to 3.7 years for non-durable goods. It takes even longer for non-durables, such as services and buildings. The study also found that a significant decline in price dispersion over time can be detected for both the new Member States and the old Member States.

⁽¹⁾ The half life of a shock is calculated as

$$t^* = -\frac{\ln 0.5}{\lambda} \text{ where } \lambda \text{ is the speed of convergence.}$$

When disentangling the catching-up and competition effects⁽²⁾ on price convergence, the study found that both are important elements in explaining convergence for the new Member States. The catching-up effect had a significant impact on price levels both when analysing the overall sample and individual product categories. While competition (measured by import penetration and the amount of price control regulation present in the economy) has a significant effect on price levels in the overall sample, its impact on the prices of individual product categories is unclear as it depends on the variable used to measure it. In this sense, import penetration was found to be significant in the case of semi-durables, durables and equipment goods, while price controls were found to be significant in services and equipment goods.

In the old Member States, the catching-up effect is only significant when examining more homogenous price categories, but not in the case of more differentiated products. The significance of the competition effect on price levels depends on the variable used to measure it. If higher competition is captured by a reduction in price controls, then it has a significant impact on prices for most product categories. If higher competition is captured by an increase in import penetration, then it has a significant impact on prices only for non-durable goods.

⁽²⁾ Principal component analysis is applied to per capita income, productivity and wages. The common information extracted from these variables in the first principle component is interpreted as measuring the catching-up effect. The competition effect is measured by import penetration and the strength of business regulation as captured by the Fraser price control sub-indicator. The higher the degree of import penetration ratio, the higher the competitor pressure exerted by the Single Market. The higher the price control indicator, the higher the degree of deregulation in the economy and therefore the stronger the competition pressure.

2. THE LISBON STRATEGY FOR GROWTH AND JOBS

This section focuses on the Lisbon process – a comprehensive strategy for the coordination of structural reforms in the EU – and analyses the participation of the new Member States in that process. This section starts by reviewing the process of structural reform in the new Member States before and after the enlargement, and argues that the prospect of EU membership has played an important role in implementing wide-ranging structural changes in these countries. It then focuses on the procedural aspects of participation in the Lisbon strategy and discusses the impact they have had on the domestic policy-making in the area of structural reforms. The third subsection provides a forward-looking comparative analysis of the reform priorities in both old and new Member States. The fourth subsection provides a snapshot of the progress achieved since the relaunch of the Strategy in 2005 and the fifth subsection presents some conclusions.

2.1. NEW MEMBER STATES AND STRUCTURAL REFORM

2.1.1. Pre-accession reforms

The new Member States have a significant reform record: as countries that transformed their economies from a centrally planned to a fully market-based model, they implemented substantial structural reforms prior to joining the EU. Following the initial macroeconomic stabilisation, liberalisation of prices, trade and investment flows, and privatisation of large parts of the economy, a gradual process of structural reform began, encompassing virtually all sectors, with the emphasis on introducing a modern and well-functioning institutional framework that would allow dynamic and sustained convergence towards developed economies.

The conditionality of EU membership worked as a powerful incentive for the implementation of numerous structural measures (Grabbe, 1999). In particular, the emphasis of the economic accession criterion on the existence of fully-fledged functioning and competitive market economy was particularly relevant. This criterion was spelled out in greater detail in the Commission Communication on Agenda 2000

and focused on issues such as: the existence of an enforceable legal system, including property rights; the existence of a well-developed financial sector and the absence of any significant barriers to market entry and exit; the availability of a sufficient amount of human and physical capital, including infrastructure; restructuring of enterprises; and access of enterprises to outside finance. These priorities were translated into the pre-accession partnerships, which specified a number of country-specific reforms. The progress was then regularly monitored and assessed in the annual reports by the Commission.

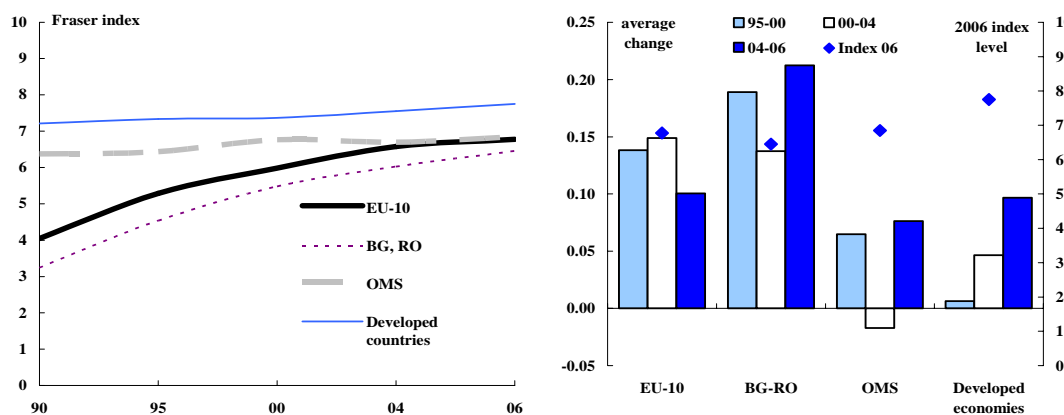
As a result of their efforts to fulfil the economic accession criteria, the candidate countries rapidly converged towards the old Member States in terms of the regulation of product, labour and financial markets. The improvements in the regulatory set-up can be discerned in a number of existing regulatory indexes (such as the OECD product market regulation index or employment protection legislation index, World Bank ‘Doing Business data’ or EBRD transition indicators). As an example, graph VII.2.1 shows the evolution of the Fraser index of regulation in product, labour and capital markets, which does indeed document the fast regulatory convergence with the EU-15 levels by the new Member States ⁽⁷¹⁾.

2.1.2. Does reform fatigue inevitably follow enlargement?

Despite significant progress in the pre-accession phase, there still remains considerable scope for reform in the new Member States (see the discussion in section 2.3). Nevertheless, some

⁽⁷¹⁾ It should be noted that the Fraser index is just one of many indicators which measure progress in regulatory reform. As most of the other measures it can be subject to criticism due to its limited coverage of different aspects of regulation. Nevertheless, given its broad country coverage and long time span it can be used for documenting the regulatory trends during the transition in comparison with other economies. The results should be considered with caution though. For the sake of robustness of the analysis, alternative measures are analysed further in the text.

Graph VII.2.1: Fraser index of regulation in product, labour and financial markets



Note: The values of the index lie in the range (0,10) with higher one indicating more business friendly levels of regulation. (2) Developed countries include: Australia, Canada, Hong Kong, Iceland, Israel, Japan, New Zealand, Norway, Singapore, Switzerland, United States
 Source: Fraser Institute (www.freetheworld.com)

observers ⁽⁷²⁾ have suggested that the accession to the EU has coincided with a phase of "reform fatigue", where the efforts of Member States to reform their economies are reduced. Reasons for this may include the weakened incentive for reform, the need to fully absorb the impact of past reforms and the exhaustion of the political capital needed to push ahead with further reform efforts⁽⁷³⁾.

The available reform indicators showing the level of stringency of the existing market institutions, the quality of their enforcement and the resulting impact on the operation of the economy can provide an indication as to the possible existence of "reform fatigue".

For example, looking at the Fraser index of aggregate regulation in credit, labour and product markets, which reflects the outcomes of reforms in terms of more business-friendly markets, the significant impact of enlargement is documented by the fact that the pace of reform efforts picked up noticeably in some areas as the date of EU

entry approached (Graph VII.2.1, right panel) and fell back thereafter. In addition, the reform efforts generally increased substantially in the year of accession – 2004. The pre-accession reform effect is also visible in the case of the two countries (Bulgaria and Romania) that joined the EU two years later, in 2007. Nevertheless, the intensity of the improvements in these areas in the new Member States has remained significant and is still higher than in the EU-15 countries.

Various reform indicators for the individual reform areas generally support these aggregate conclusions, although a more nuanced picture does appear (Table VII.2.1). In product markets, most of the reform indexes point to a slowdown of reform in the new Member States as a whole after 2004, both in absolute terms and relative to the old Member States. In financial markets, the available indexes provide mixed messages, with the Fraser sub-index for capital markets pointing at an absolute (as well as a relative) slowdown, and the EBRD transition indexes not showing an absolute reduction in reforms. In labour markets, the Fraser sub-index for the labour market shows that the relative pace of reforms dropped after 2004 (but not the absolute), although the evidence from more detailed labour market indicators is inconclusive.

⁽⁷²⁾ For example, Financial Times, 27 September 2006, "Reform fatigue has hit the east" by Stefan Wagstyl and Christopher Condon.

⁽⁷³⁾ It is nevertheless important to define clearly what reform fatigue is. Due to very high reform efforts prior to accession, a consequent decline can just be a statistical "base effect". It is, therefore, useful to compare the reform intensity with that in a reference group to be able to judge whether a decline in reform activity is to be considered a potential cause of concern.

Table VII.2.1: Evidence on post-enlargement reform fatigue form different reform indicators

Was there an absolute slowdown in reforms after 2004?															
	CY	CZ	EE	HU	LV	LT	MT	PL	SK	SI	BG	RO	NMS	YES	NO
Fraser index - Product markets	na	no	no	no	no	no	na	no	no	no	no	no	no	0	10
Heritage Business Freedom Index	yes	no	yes	no	no	no	yes	yes	yes	yes	no	no	yes	6	6
World Bank - Quality of regulation	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes	no	yes	10	2
EBRD TI - Enterprise restructuring	na	no	no	no	yes	yes	na	no	no	yes	yes	no	yes	4	6
EBRD TI - Competition policy	na	yes	no	no	yes	no	na	no	no	no	no	no	no	2	8
EBRD TI - Infrastructure reform	na	yes	no	no	yes	no	na	no	yes	yes	yes	no	yes	5	5
OECD Product market regulation	na	yes	na	no	na	na	na	yes	na	na	na	na	yes	2	1
Fraser index - Capital market	yes	yes	yes	no	no	yes	yes	yes	no	yes	yes	yes	yes	9	3
EBRD TI - Banking reform	na	yes	no	no	yes	no	na	no	no	no	no	no	no	2	8
EBRD TI - Securities markets	na	no	no	no	yes	no	na	no	yes	no	no	yes	no	3	7
Fraser index - Labour market	na	no	yes	no	no	no	na	no	yes	no	no	no	no	2	8
Tax rate on low wage earners	no	no	no	yes	yes	yes	yes	yes	no	yes	no	yes	no	7	5
OECD EPL regular	na	no	na	yes	na	na	na	no	yes	na	na	na	yes	2	2
OECD EPL temporary	na	yes	na	no	na	na	na	yes	yes	na	na	na	yes	3	1
Unemployment trap	na	no	na	yes	na	na	na	no	no	na	na	na	yes	1	3
Inactivity trap	na	no	na	yes	na	na	na	no	no	na	na	na	no	1	4
Was there a slowdown in reforms relative to the OMS?															
	CY	CZ	EE	HU	LV	LT	MT	PL	SK	SI	BG	RO	NMS	YES	NO
Fraser index - Product markets	na	yes	yes	yes	yes	no	na	no	yes	no	yes	yes	yes	7	3
Heritage Business Freedom Index	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	no	no	yes	9	3
World Bank - Quality of regulation	no	yes	no	yes	yes	yes	yes	no	yes	yes	yes	no	yes	8	4
OECD Product market regulation	na	yes	na	no	na	na	na	yes	na	na	na	na	no	2	1
Fraser index - Capital market	yes	yes	yes	no	no	yes	yes	yes	no	yes	yes	yes	yes	9	3
Fraser index - Labour market	na	no	yes	yes	yes	yes	na	no	yes	yes	no	no	yes	6	4
Tax rate on low wage earners	no	no	no	yes	no	yes	no	no	no	yes	no	no	no	3	9
OECD EPL regular	na	no	na	no	na	na	na	no	yes	na	na	na	no	1	3
OECD EPL temporary	na	yes	na	no	na	na	na	yes	yes	na	na	na	yes	3	1
Unemployment trap	na	no	na	yes	na	na	na	yes	no	na	na	na	yes	8	4
Inactivity trap	na	no	na	yes	na	na	na	no	no	na	na	na	no	3	7

Note: The table compares annual changes in normalised reform indexes for periods 2000-2004 and 2004-2006 (1998-2003 and 2003-2006/8 for OECD indexes). For the comparison with the old Member States, a simple average of available EU-15 countries is taken as a benchmark. Counts of "yes" and "no" include only individual new Member States and not the EU-10 aggregate.

Source: Fraser Institute, Heritage Foundation, World Bank, EBRD, OECD, Eurostat.

Alternatively, it is possible to explore the extent of the reform activity of governments and administrations by looking at the number of reform measures implemented. Thus, box VII.2.1 explores the number of reforms in the EU labour markets over the period 2000-2006 using econometric techniques. It concludes that the legislative activity of governments in new Member States increased in comparison with the old Member States. This result may be explained by the fact that the proliferation of reforms in the post-enlargement period was due to the adoption of a number of measures as a follow-up to the substantial reforms implemented in the run-up to EU membership.

2.1.3. Looking ahead

While the new Member States made considerable progress in the pre-accession period and met the Copenhagen economic criterion, many important structural reforms that were on the agenda of the governments have lagged behind (e.g. pension reforms, conditions for starting a business, modernising bankruptcy legislation, reforms of national innovation systems, education reform).

Consequently, there remains a significant need to move the structural reform process forward in order to sustain the catching up process and to boost the adjustment capacity and competitiveness of the new Member States.

The old Member States largely face the same challenge. As Graph VII.2.1 indicates that there is still considerable room for improving regulation to make it more business-friendly in the EU compared to other developed countries. This should help markets to operate smoothly and flexibly in view of the rapidly changing world economic climate, and all the more so since the recent financial crisis. Hence, both new and old Member States face the same need for reform, as well as political constraints that are hampering faster progress in implementing the necessary structural reforms. The need to adjust quickly is now particularly pressing, as the consequences of the financial crisis have spilled over into the real economy and are leading to a sharp deterioration in both current and forecast growth rates across the whole of the EU.

Box VII.2.1: Was there a reform fatigue in the new Member States after enlargement?

This box analyses whether accession coincided with a new phase of 'reform fatigue', where the efforts by Member States to reform their economies are reduced as a result of weakened incentives and the need to fully assimilate the impact of past reforms.

With a view to address the above question for what concerns labour market reforms, analysis has been conducted on the DG ECFIN labour reform LABREF database. LABREF is one of the few sources of comparable information on reforms in all Member States. The database provides a comprehensive description of legislation changes in all EU Member States in the field of labour market regulation, labour taxation, pensions. To date, the database covers the 2000-2006 period.

Assessing whether reform fatigue is taking place in new Member States involves the difficulty of defining an adequate counter-factual.

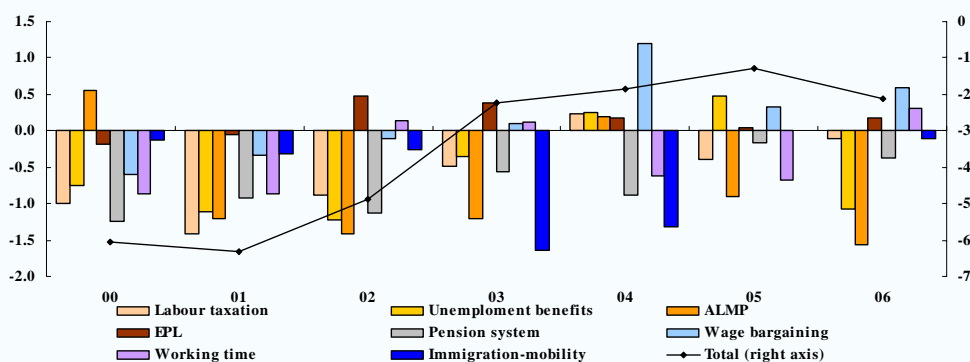
First of all, looking at whether reforms became more or less frequent in this group of countries after enlargement may not be sufficient, since the variation in the reform effort over time could be driven by factors common to all countries.

In this respect, it is helpful to resort to a 'difference-in-difference' approach, whereby changes the reform effort in the new Member States are assessed against a 'control' group of countries. Graph 1 provides such an assessment using the old Member States as a control group. The graph reports the difference in the average

number of reforms per year between the new Member States (including Bulgaria and Romania) and the EU-15 countries. Although in all years reforms appear less frequent on average in new Member States, the frequency of reforms has been rising since 2000 in comparison with the old Member States. Most of the increase is due to higher reform activity in new Member States, while the average number of reforms across EU-15 countries was broadly constant (ranging from a minimum of 9.12 reforms in 2002 to a maximum of 12.6 reforms in 2004).

The second problem with the definition of an appropriate counter-factual is that the need to reform labour markets may vary across countries and time periods, as well as the extent to which feasibility constraints are binding. To control for these additional factors regression analysis is needed. To this end, the number of reforms taking place in each country and each year is regressed against a series of explanatory factors and country-specific effects capturing labour market conditions in each country at the beginning of the sample (IMF, 2004; Buti, Roeger and Turrini, 2008; J. Hoj et al. 2004). The econometric specification also includes a dummy variable capturing a common new-Member-States effect, a dummy capturing effects common to all countries in the sample following the 2004 enlargement, and a dummy capturing uniquely post-enlargement effects for the new Member States. The presence of a possible reform fatigue would be revealed by the sign of this last variable.

Graph 1: Frequency of labour market reforms in new versus old Member States, 2000-2006



Source: Commission services

(Continued on the next page)

Box (continued)

Table 1: Econometric analysis of reform determinants

Explanatory variable	Dependent variable (number of reforms per year)			
	Total reforms	Reforms in labour taxation	Reforms in pension systems	Other reforms affecting labour supply and demand
Lagged number of reforms in the same area	-0.013* (-1.82)	-0.07 (-1.32)	-0.170*** (-3.80)	-0.016 (-1.47)
Lagged NAWRU	0.102** -2.5	0.313** -2.56	0.036 -0.37	0.072 -1.5
Change in employment rate	-0.112** (-2.32)	0.026 -0.21	-0.320** (-2.22)	-0.116 (-2.06)
Lagged output gap	-0.047 (-1.60)	-0.202** (-2.49)	-0.044 (-0.51)	-0.014 (-0.42)
Lagged change in primary cyclically-adjusted budget balances	-0.001 (-0.04)	-0.114** (-2.23)	-0.055 (-1.15)	0.032 -1.41
New Member States (dummy)	-1.659*** (-5.52)	-6.156*** (-4.36)	-0.883 (-0.81)	-1.168*** (-3.45)
Post enlargement period (dummy)	0.088 -0.93	-0.235 (-0.95)	-0.059 (-0.24)	0.218* -1.92
New Member States after enlargement (dummy)	0.466*** -3.32	1.284*** -3.11	0.589 -1.56	0.306* -1.86
Number of observations	144	144	144	144

Note: Estimation method: Poisson regressions. All regressions include (unreported) country fixed effects. Regression coefficients represent the impact of a unitary increase of each of the explanatory variables on the logarithm of the number of reforms per year. Z statistics are reported in parentheses. *, **, *** denote, respectively, coefficients significant at the 10, 5, 1 per cent level of significance. The New Member States dummy takes value 1 for all New Member States that entered the in 2004 and 2007. The enlargement dummy takes value 1 after 2003.

Source: AMECO and LABREF

The regression results indicate that past reforms appear to reduce the likelihood of additional measures. As expected, reforms appear to be more frequent when the NAWRU (Non-Accelerating Wage Rate of Unemployment) is high, cyclical conditions are weak, and employment rates are falling. The fiscal stance has no significant impact on the frequency of reforms. New Member States exhibit a lower frequency of reforms, which however rises after enlargement. Repeating the same regression using, as alternative dependent variables, reforms in labour taxation, in pension systems, and in remaining legislations affecting labour markets, results are broadly confirmed. Reforms, in labour

taxation, however, appear to be hampered by an ongoing fiscal consolidation effort. Moreover, the increase in the frequency of reforms in New Member States in the post-enlargement period is not statistically significant as far as pension reforms are concerned. Although it is important to interpret results with caution (the number of legislation changes enacted is not necessarily representative of the extent to which the actual functioning of labour markets is modified) the data appear to reject the hypothesis of a post-enlargement reform fatigue phenomenon in new Member States.

2.2. LISBON STRATEGY AND NEW MEMBER STATES

The Lisbon strategy is a comprehensive strategy for reform launched by the European Council in March 2000. The aims of the strategy are to coordinate and stimulate structural reforms in the areas of macroeconomic policies, labour, product and financial markets with the objective of modernising the European economy and promoting its innovation capacity. This was deemed necessary if Europe is to successfully face the challenges of increasing competitive

pressures due to globalisation, the accelerating pace of technological change, and the implications of ageing populations for potential growth and public finances. Structural reforms are also needed as a part of the response to the implications of the international financial crisis for the real economy, as they help boost confidence, facilitate transitions within and into the labour market in the short and medium term and increase potential growth in the long term. Structural reforms have therefore a crucial role to play in the European Economic Recovery

Plan⁽⁷⁴⁾, which is the EU's response to the economic and financial market crisis and which has been proposed by the European Commission in November 2008 and agreed in the European Council in December 2008.

The strategy is an integral part of the policy coordination framework established by Articles 99 and 128 of the Treaty. It relies on headline targets, guidelines, multilateral surveillance, peer review and benchmarking. These are "soft" tools whose aim is to build consensus and exchange of experiences. To guide reforms at national level, the EU issues "country-specific recommendations" (identifying specific pressing issues that require policy action) and "points-to-watch" (pointing to issues which require increased attention and potentially policy action). These measures, however, rely on a political commitment only and are not legally binding.

Following a mid-term review in 2004-5, and based on the unsatisfactory progress in implementing the necessary structural reforms, the Lisbon strategy was relaunched. First, it was decided that the efforts had to concentrate more on promoting growth and generating jobs. Secondly, a streamlined governance structure was agreed which, besides establishing a more integrated approach and delineating more clearly the responsibilities at national and EU levels, also increased the political prominence of the strategy as a means of improving the enforceability of reform commitments made by national governments. The renewed Strategy was endorsed by the European Council in March 2005.

The participation of the new Member States in the Lisbon strategy has a dual impact. On the one hand, the Lisbon strategy provides new Member States with a different framework and different incentives for conducting reforms. On the other hand, enlargement has implications for the governance of the strategy itself.

Regarding the incentives for reforms, compared to the pre-accession period when the prospect of

EU membership acted as a powerful incentive to implement the necessary reforms (or, equally, the threat of postponed membership in the case of non-compliance acted as a potential but effective sanction), the Lisbon agenda is essentially a political process relying on the political commitment of Member States to effectively deliver on their reform promises. On the other hand, after accession, the need for structural reforms is underpinned by other objectives too. For example, an increased capacity to effectively absorb EU funds also depends on further structural reforms aimed at easing supply constraints, and the objective of joining the euro area requires a further improvement in the functioning of the markets for labour, products and finance. These objectives thus strengthen the incentives of the new Member States to carry out the necessary structural reform.

With respect to the governance of the strategy, the 2004 enlargement has had important implications, which impact in their turn on the conditions for the implementation of structural reforms in the new Member States. In particular, it has compounded the diversity between Member States in terms of their structural conditions and the related need for reforms. The new Member States are all "catching-up" economies, with comparatively large technology gaps compared to most of the old Member States. This fact accentuates the diversity in the EU and, as a consequence, the need for flexibility and a country specific approach has increased. The answer was to place the emphasis on ownership of reforms, which is reflected in the Member States' responsibilities when setting their national reform agendas and which provides enough flexibility to accommodate specific national conditions.

This puts the emphasis on the ability of administrations to draw up realistic, yet appropriately ambitious, reform plans and to carry them out. The EU Integrated Guidelines – a blueprint for policy approaches – set common objectives, priority actions and targets. However, given the diversity among the EU Member States and the fact that structural reforms fall largely within the remit of national governments (the EU's internal market being a notable exception), Member States can choose various policy approaches at national level in order to achieve

⁽⁷⁴⁾ Commission Communication "A European Economic Recovery Plan", COM(2008)800

these objectives. In order to succeed, it is essential to identify the correct policy priorities and translate them into a coherent reform strategy. There is thus a need for robust analysis that should underpin the choice of reform priorities and the design of concrete reform measures so as to maximise their effectiveness in the national context. Robust and transparent analysis is also essential to sustain the credibility of country-specific recommendations issued to Member States. Such recommendations need to be relevant and underpinned by an analysis which is comparable across countries, policy areas and time. Moreover, cross-country comparative analysis facilitates peer review, sharing of best practices and mutual learning.

2.3. THE REFORM PRIORITIES IN THE NEW AND OLD MEMBER STATES

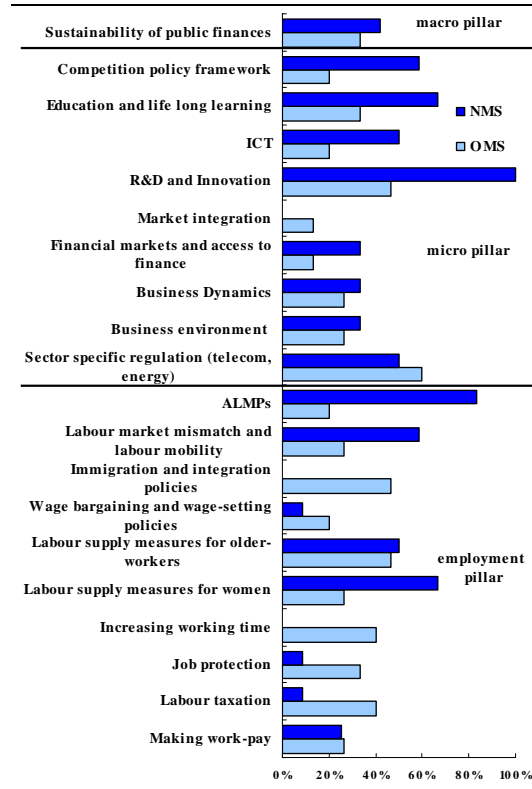
In its effort to underpin the Lisbon process with a robust analytical basis, the Commission is working on methodologies for the monitoring and evaluation of the Lisbon reforms. Monitoring and assessing reforms is an important factor in the success of the Lisbon strategy. In addition, analysis of underperforming policy areas can help Member States identify their reform priorities. The analysis in this section draws on an analytical framework developed by the Commission services on the basis of a method agreed with the Member States (Box VII.2.2).

2.3.1. Underperforming policy areas

In order to explore the policy priorities that would help Member States to achieve the headline Lisbon goals, i.e. higher growth and more jobs, the performance in a number of relevant policy areas is assessed. A total of 20 policy areas falling under the three broad areas of the Lisbon strategy (macro, micro and employment) are analysed. These areas are generally those which the economic literature has identified as being relevant for GDP growth. The analysis indicates whether a policy area is exhibiting overperformance, neutral performance

or underperformance in relation to the EU-15 benchmark⁽⁷⁵⁾.

Graph VII.2.2: Share of Member States underperforming in a policy area



Source: Commission services

Overall, the results show a significant degree of heterogeneity among the EU-27 countries (Graph VII.2.2). On average, nevertheless, the new Member States underperform in more policy areas than the old ones. Compared to the EU-15 countries, the new Member States lag behind to a far greater extent in the area of knowledge and innovation and also to some extent in product and capital markets, i.e. areas that are crucial for the long-term productivity growth. In terms of concrete policy areas, poor results are more prevalent in R&D and innovation, ICT, education and life-long learning, competition

⁽⁷⁵⁾ As explained in Box VII.2.2, this assessment rests on indicator-based analysis (for each policy area an aggregate score is derived from the performance in selected indicators) which is complemented with additional country-specific evidence and qualifications. When interpreting the results it also needs to be borne in mind that this is a relative assessment and a change in the benchmark could alter the conclusions.

policy framework, and financial markets in the new Member States. They also underperform significantly more often in some areas in the employment field, namely ALMPs, specific labour supply measures for women, labour market mismatch and labour mobility.

Underperformance in the old Member States seems to be more concentrated in policy areas associated with the labour market, in particular in the areas of labour taxation, job protection, policies to increase working time, immigration and integration policies. In the micro field, sectoral regulation seems to be the area where most old Member States are lagging behind in terms of performance. It is also noteworthy that almost half of the old Member States underperform in the area of R&D and innovation. Consequently, the area of knowledge and innovation seems to be one where there is important room for improvement in all EU countries, although underperformance in the new Member States is more acute than in the old ones.

The general picture of underperformance in policy areas is consistent with the pattern of performance in terms of the differences in GDP level and growth. This in turn indicates that the identified weaknesses may be acting as bottlenecks to growth and that tackling them could be effective in boosting growth and employment performance.

The new Member States, as catching-up economies, often post considerably lower levels of GDP per capita than older Member States: average GDP per capita in new Member States is around half that of the old Member States. This considerable differential vis-à-vis the old Member States is mainly due to weak productivity levels, which are the main concern in all new Member States. This can largely be linked to the lower level of technological development and the weaknesses that remain in some micro policy areas. It has to be realised, however, that progress has been considerable. Due to advances in enterprise restructuring and privatisation, improvements in the business environment, increases in FDI inflows and transfers of technologies, it is the growth in labour productivity that has been the main driver of the catching up process. Nevertheless, it is

important to avoid complacency and to address the existing shortages, which could become a serious obstacle to future growth.

As regards the differences in the level of contribution to GDP from labour utilisation, the new Member States generally outperform the old ones (sometimes by a large margin). This is consistent with the relatively better performance of the new Member States in the labour market areas compared to the EU-15 benchmark (to a large extent in terms of average hours worked). However, in terms of growth, the contribution of labour utilisation overall was slightly negative. Yet there was a considerable improvement in the post-enlargement period, and the acceleration in overall growth in 2004-2006 was also due to a better labour market performance.

2.3.2. Magnitude of the challenges

While the previous section analysed the distribution of underperforming policy areas across new and old Member States it is also interesting to explore whether the challenges are greater for the former than for the latter. This can be done by analysing the aggregate scores for individual policy areas which indicate the extent of over- or underperformance (Graph VII.2.3) and thereby the magnitude of challenges faced by countries⁽⁷⁶⁾.

In most of the policy areas related to the labour markets, the performance of the new Member States does not differ substantially from that of the old ones. However, there are two notable exceptions: the performance of the new Member States seems, on average, to be considerably weaker in terms of ALMPs, while the old Member States experience greater problems in respect of policies that increase working time. In addition, wage setting policies warrant attention in Bulgaria and Romania, as unless the recent high increases in wages prove to be only temporary, they may threaten the competitiveness of these economies.

⁽⁷⁶⁾ Note that average aggregate scores for policy areas are computed for the EU-15, the EU-10 as well as Bulgaria and Romania (considered as a specific group for this exercise).

Box VII.2.2: An assessment framework for structural reforms

The Commission services developed in collaboration with Member States ⁽¹⁾ an analytical tool called the "LIME Assessment Framework" (LAF). This framework can help underpin the assessment with respect to identification of key policy challenges in raising growth potential and also, to some extent, past performance in implementing structural reforms.

The framework builds on an examination of the sources of GDP per capita differentials and the main drivers of growth relative to a benchmark (EU-15 average). This is done through a GDP per capita decomposition, both in level (in 2006) and in changes (over the period 2000-2006) into a number of GDP components⁽²⁾.

Furthermore, an analysis of performance is carried out in 20 policy areas which the economic literature has identified as being relevant for GDP. This consists of an assessment of key indicators (mostly structural indicators of Eurostat and the Employment Committee) relevant for each of the 20 policy areas.

In order to allow a comparison across countries and policy areas, a standardised continuous scoring system has been applied to assess performance of GDP components as well as policy areas, both for levels and changes. The scores are calculated as:

$$Score = \frac{Indicator - Indicator_{OMS}}{St.deviation_{OMS}} * 10$$

⁽¹⁾ This work was undertaken in the context of the mandate of the Lisbon Methodology (LIME) Working Group and details on the developed methodology can be found in European Commission (2008j).

⁽²⁾ The results of the GDP decomposition are not reported in this chapter. An interested reader should refer to Mourre (2009).

To avoid giving too much weight to outliers, the score is capped at three standard deviations. Thus scores range from +30 to -30. Standardised thresholds have also been used to determine categories of performance. A score below -4 is *a priori* considered to represent underperformance (-); a score between +4 and -4 is *a priori* considered to represent a neutral performance (=); a score above +4 is *a priori* considered to represent over-performance (+). The overall assessment of performance is reached by combining the results of the indicator-based assessment with additional country-specific evidence and qualifications.

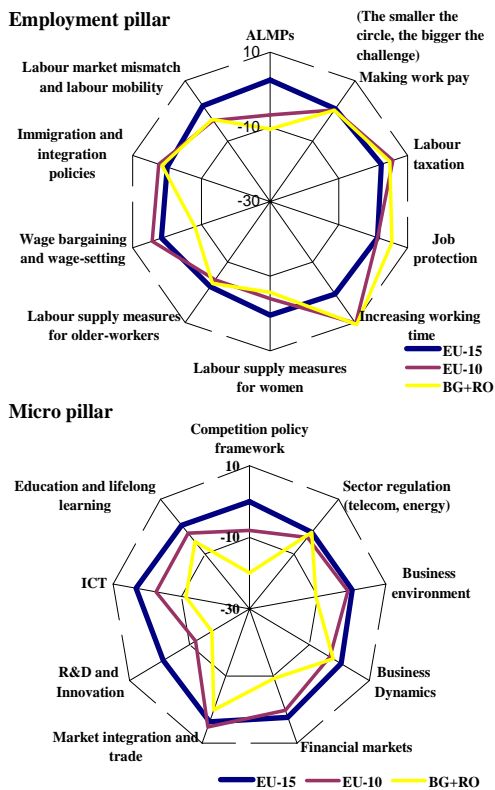
This framework provides a consistent and transparent tool for examining performance across many policy areas in the Lisbon process, taking account of both levels and changes. It can cater for the very different starting position of Member States, and balances the need for consistency across Member States with the need to take account of wide differences in country-specific institutional settings and circumstances.

However, results should be interpreted cautiously due to some limitations. First, the usual caveats associated with growth accounting apply, e.g. no information is provided on causality. Secondly, for an important number of indicators, 2006 is the reference year to determine the level of performance and therefore the data does not reflect reforms taken by Member States since then. Moreover, due to inevitable time lags, many of the indicators may not reflect the impact of recent reforms. Finally, the LIME Assessment Framework does not cover a number of dimensions and objectives falling under the Lisbon strategy and the Integrated Guidelines, such as quality at work, work organisation, social cohesion and social adequacy, quality of and access to education.

In the microeconomic area, the extent of underperformance appears higher for new Member States in several areas: competition policy framework, ICT and, in particular, R&D and innovation. The extent of the challenges seems to be even more pronounced in Bulgaria and Romania. These countries, moreover, show

greater underperformance in financial markets and business environment.

Graph VII.2.3: Policies in the employment and micro pillar



Note: The values represent (unweighted) average aggregate scores for each policy area computed for each group of countries. As explained in Box VII.2.2, the scores range between -30 (the worst performance) and +30 (the best performance). The value of 0 indicates performance equal to the EU-15 benchmark (computed as a weighted average).
Source: Commission services

In addition, in the policy areas where both groups as a whole have a similar level of underperformance (e.g. making work pay), there appears to be a greater diversity among the new Member States than in the old Member States, suggesting that a greater degree of underperformance in some countries has been offset by a much better performance in others.

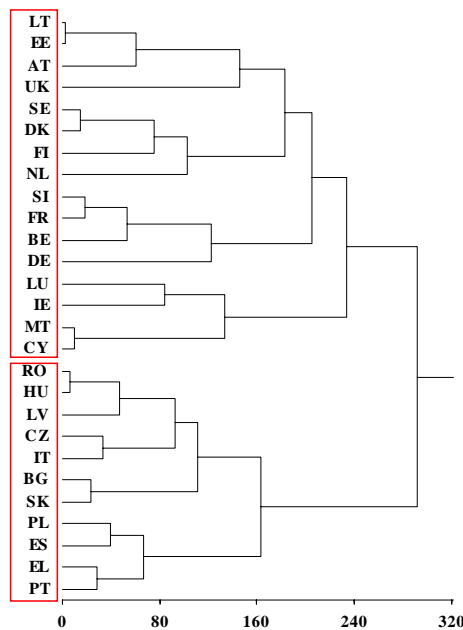
2.3.3. Patterns of performance

The analysis has so far pointed to an important degree of heterogeneity across Member States in terms of the nature as well as extent of structural challenges they are facing. How does this square with the fact that the new Member States, due to their transition experience, are often perceived as a homogenous group? To answer this question it is possible to apply statistical clustering techniques on the aggregate scores for policy

areas which make it possible to identify groups that share similar patterns of performance⁽⁷⁷⁾.

While it does not seem to be possible to draw a clear dividing line between the new and the old Member States, at the most aggregated level there seem to be two relatively clearly defined groups of countries (Graph VII.2.4). One group comprises Austria, Belgium, Cyprus, Germany, Denmark, Estonia, Finland, France, Ireland, Lithuania, Luxembourg, Malta, the Netherlands, Sweden, Slovenia and the UK, and the other group consists of Bulgaria, Czech Republic, Greece, Spain, Hungary, Italy, Latvia, Poland, Portugal, Romania, Slovakia. It is quite interesting to observe that the second group actually contains a majority of the new Member States plus the Mediterranean EU countries.

Graph VII.2.4: Clusters of countries: performance in policy areas



Source: Commission services

These countries are characterised by a relatively larger number of underperforming policy areas

⁽⁷⁷⁾ The results are based on hierarchical cluster analysis which allows grouping together objects that are similar to one another. The method exploits an algorithm that groups the objects on the basis of a distance measure. In this case, the squared Euclidean distance measure was used and the clusters were determined with the Ward clustering algorithm.

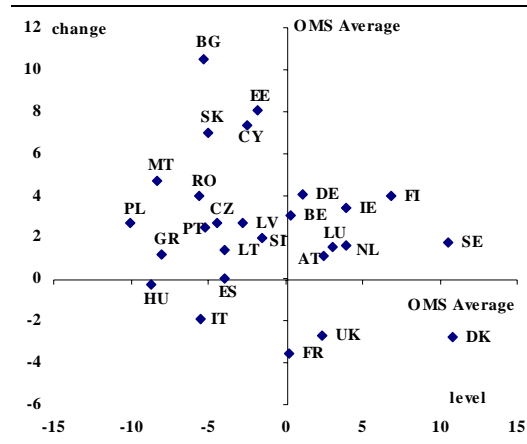
which are spread across all three domains (macro, micro and employment). Within this group, further specific subgroups can be identified (e.g. the Mediterranean countries except Italy). It is also worth noting that Cyprus, Malta and Slovenia – the first new Member States to join the euro area – were clustered in the first group, together with two Baltic countries (Estonia and Lithuania).

Results thus show that a majority of the new Member States actually share similar patterns of performance across policy areas. Nonetheless, this pattern is not confined to them and some of the old Member States seem to have similar characteristics. This should, of course, be seen against the backdrop of the considerable diversity between the old Member States themselves.

2.4. PROGRESS SINCE THE RELAUNCH OF THE STRATEGY

In many of the EU countries, there has been progress on many issues that form part of the Lisbon agenda since 2005. In particular, most of the new Member States have recorded significant progress, as a result of which they have quickly converged with the performance of the old Member States. Graph VII.2.5 measures the progress in terms of average scores for the level and change of 36 selected indicators that cover the main areas and policies pursued in the Lisbon strategy⁽⁷⁸⁾. It shows that most of the new Member States are rapidly catching up with the old Member States, as they have recorded above-average improvements, thus reducing the existing gap in terms of level performance. The pace of progress has been particularly fast in Bulgaria, Estonia, Cyprus, Slovakia, Malta and Romania. There were relatively modest improvements in Poland, Czech Republic, Lithuania and Slovenia. In Poland, especially, progress appears very slow given the large gap between its performance and the EU-15 average.

Graph VII.2.5: Progress in Lisbon strategy: average scores for a set of headline indicators



Note: The average score is based on a list of 36 indicators covering the main areas of the Lisbon strategy. These indicators largely come from the set of indicators used in the assessment framework presented in the section 2.3. For the tractability of the exercise, key indicators were selected which have sufficient time coverage. In addition, several indicators covering additional policy areas such as energy and climate change were added. The score for each indicator is computed on the basis of the formula presented in Box VII.2.2. The level calculation is based on 2006/7 data and the change on the period 2005-2007.

Source: Commission services

Lastly, Hungary has not experienced any improvement compared to the EU-15 average, and convergence has stalled. The situation in the old Member States is more diverse. On the one hand, a group of countries (Austria, Luxembourg, Belgium, Finland, Germany, Ireland, the Netherlands and Sweden) have achieved above-average progress and have strengthened their good starting positions. On the other hand, other countries are defending positions which may be threatened due to their worse-than-average performance (Denmark, France and the UK) or are further losing ground as they combine relatively low level performance with dismal average growth in the relevant indicators (Italy and Spain). Greece and Portugal belong to the group that is catching up, although the rate of progress is not very fast.

2.5. CONCLUSIONS

The new Member States have made significant progress in terms of implementing structural reforms. In the process of accession to the EU, they transformed their economies from the centrally planned to the fully fledged market-based model. In some cases, the new Member

⁽⁷⁸⁾ The scores for individual indicators are based on the formula presented in the box VII.2.2. The list of indicators can be found in a companion document to the "European Economic Recovery Plan", COM(2009) 34/2.

States managed to exploit the considerable reform momentum and push the reforms further than the old Member States, which had experienced hold-ups in reform due to social and political resistance and a *status quo* bias. On the other hand, the process of institution building is inevitably a gradual one and many shortcomings remain. Moreover, the new Member States are still much further from the global technological frontier than the old Member States.

The Lisbon strategy for growth and jobs was designed to promote and coordinate structural reform in the Member States by means of common guidelines, policy recommendations, peer pressure and exchange of experiences. The adoption of the new procedural arrangements by the new Member States has gone smoothly. As a result, they experienced a fundamental change in the governance of the domestic reform processes and the associated weakening of the external pressure to implement reforms. They appear to be coping fairly well. Reform efforts seem to have increased in some countries and some policy areas, though this is not a systematic picture. From the institution building point of view, the new Member States have benefited from participation in the Lisbon strategy through a strengthening of the coordinated approach to policy making at domestic level.

As for the future reform priorities, the microeconomic area seems to be the one where there is most room for improvement in the context of structural reforms in all EU Member States, and underperformance in new Member States seems to be much more acute than in the old ones. While in some areas related to the labour market new Member States perform rather well, there are also serious weaknesses. What is needed, therefore, is a comprehensive approach to structural reform.

Structural reforms are all the more necessary in the current conditions of namely financial crisis, wavering growth and low consumer confidence. While the full benefits of these reforms usually come only after some time, there are reforms that can have a considerable positive impact even quite soon after being implemented (e.g. cuts in red tape, increases in competition, or policies to make work pay). Moreover, by creating the conditions for higher growth in the longer run,

structural reforms can help boost confidence among households and firms. Structural reforms need to form an integral part of the response to the slowdown as outlined in the European Economic Recovery Plan.

3. FISCAL SURVEILLANCE

This section starts with an overview of fiscal performance since EU accession. In addition to presenting the key developments in budget balances and debt, this first subsection will briefly cover the history of the excessive deficit procedures and adjustment towards the medium-term budgetary objectives.

Next, the contribution of fiscal policy to macro-financial stability will be analysed. At the time of joining the EU, many of the new Member States were experiencing both rapid catch-up growth and a concomitant growth of credit, and external imbalances were increasing. Since then, macroeconomic imbalances have continued to grow apace. So the core issue is whether deficits and debt have been contained to the extent necessary to cope with the current financial crisis and to insure against further risks to macro-financial stability, or whether even more prudent fiscal policies are required.

Then, in a longer-term perspective, the scope for improving the quality of public finances will be analysed. A particular focus is on growth-enhancing public investment, which may matter for stable convergence and hence could in itself justify fiscal deficits. However, standing against this is not only the need to safeguard macro-financial stability but also considerations stemming from other aspects of quality. A closely related issue is the policy response to the challenge of long-term sustainability.

3.1. RECENT FISCAL PERFORMANCE

Like the old Member States, the years after accession - at least up to 2007 - were characterised by improved (nominal) budget and structural balances, and by lower debt ratios. Moreover, as in the old Member States, various excessive deficits were corrected, and progress towards the medium-term budgetary objectives (MTOs) was achieved.

Nevertheless, among the new Member States, the development of budget balances has been very varied (Table VII.3.1). Starting with the Baltic States, Estonia posted a budgetary surplus throughout the period since 2004, while Lithuania and Latvia generally reported small

deficits. As for the central European countries, Hungary's headline deficit peaked at an unprecedented 9.2% of GDP in 2006, although this was followed by a very considerable improvement. In Poland, the deficit decreased steadily from an initially high level, and by 2007 had fallen below 3% of GDP; in the Czech Republic and Slovakia it exceeded the 3% threshold only intermittently. Slovenia ran small deficits throughout the period. In the case of the island states, deficits in excess of 3% of GDP were steadily reduced, and in Cyprus (following data corrections) they were replaced in 2007 by a large surplus. As for the South-East European countries, the Romanian headline deficit continued to grow, coming close to the 3% threshold in 2007, while Bulgaria reported surpluses throughout. However, as a result of the current financial crisis, budget balances are expected to worsen again soon in the new Member States, albeit at a slower pace than in the old Member States.

As with the headline budget balances, in most new Member States structural balances were improving or approximately constant between accession and 2007. A small but steady increase in the structural deficit took place in Latvia during that period, while the Czech Republic, Slovakia, Hungary, and Slovenia intermittently reported deteriorations.

The improvements in the budget and structural balances in Cyprus, Slovakia, and also in Poland were mainly revenue-driven, while those in the Czech Republic, Slovenia, Malta, and Bulgaria were mainly expenditure-driven. Mainly expenditure-driven consolidation (omitting interest expenditure) bodes well for a lasting correction of the government deficit (Alesina and Perotti, 1997). Cyprus is a special case (with much of the fiscal developments being due to data revisions), while Slovakia has one of the lowest tax burdens, and Poland has also recently engaged in cutting expenditure. The recent reduction of the very large Hungarian deficits has relied on a combination of both revenue and expenditure measures.

Table VII.3.1: Budget balances in the new Member States

% of GDP	1999	2003	2004	2005	2006	2007	2008
BG	0.4	-0.3	1.6	1.9	3.0	0.1	3.2
CZ	-3.7	-6.6	-3.0	-3.6	-2.7	-1.0	-1.2
EE	-3.5	1.7	1.7	1.5	2.9	2.7	-2.0
CY	-4.3	-6.5	-4.1	-2.4	-1.2	3.4	1.0
LV	-3.9	-1.6	-1.0	-0.4	-0.2	0.1	-3.5
LT	-2.8	-1.3	-1.5	-0.5	-0.4	-1.2	-2.9
HU	-5.4	-7.2	-6.4	-7.8	-9.3	-5.0	-3.3
MT	-7.7	-9.8	-4.7	-2.8	-2.3	-1.8	-3.5
PL	-2.3	-6.3	-5.7	-4.3	-3.8	-2.0	-2.5
RO	-4.5	-1.5	-1.2	-1.2	-2.2	-2.5	-5.2
SI	-2.0	-2.7	-2.2	-1.4	-1.2	0.5	-0.9
SK	-7.4	-2.7	-2.3	-2.8	-3.5	-1.9	-2.2
EE, LT, LV	-3.4	-0.4	-0.3	0.2	0.8	0.5	-2.8
CZ, HU, PL, SI, SK	-4.2	-5.1	-3.9	-4.0	-4.1	-1.9	-2.0
CY, MT	-6.0	-8.2	-4.4	-2.6	-1.7	0.8	-1.3
BG, RO	-2.1	-0.9	0.2	0.3	0.4	-1.2	-1.0
NMS	-3.4	-5.1	-3.9	-3.5	-3.4	-1.8	-2.5
OMS	-0.8	-3.0	-2.8	-2.4	-1.3	-0.8	-2.0

Source: Commission services

Debt ratios in the Baltic States and in Estonia in particular have remained at very low levels during the whole period since 2004. Conversely, in Hungary, the debt ratio has remained above 60% of GDP throughout. In the other Central European countries, the relatively small debt ratios were declining, at a varying pace. Cyprus and Malta steadily reduce their debt ratios, from more than 60% of GDP initially. Very low debt ratios were posted during the entire period by both Romania and Bulgaria. On the other hand, the debt ratios during the years 1999-2003 were also low in general, but moved in both directions.

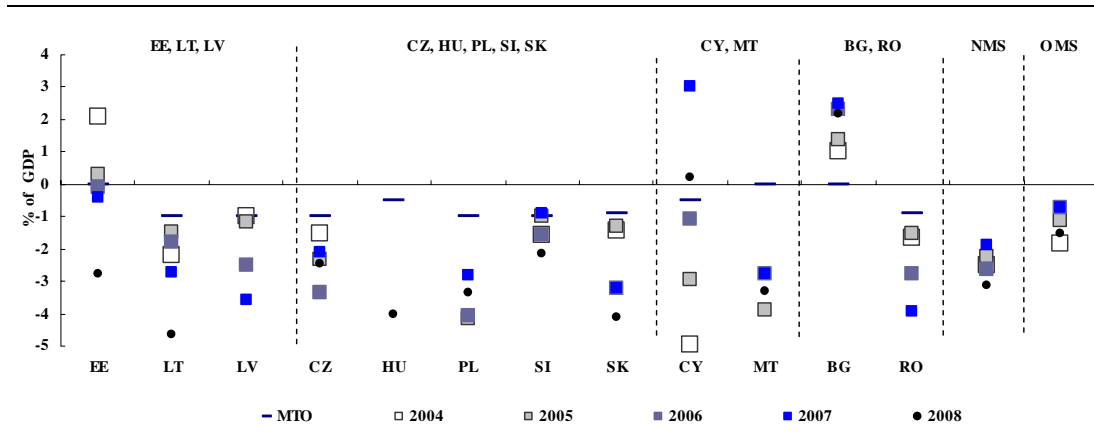
So, the years 2004-2007 show an improvement in most fiscal variables as compared to the previous five years (1999-2003). Indeed, some new Member States (such as the Baltic States, Slovakia and Romania) had already reduced their budget deficits during that earlier period, while the others experienced intermittent deteriorations.

In July 2004, on the basis of recommendations by the Commission, the Council decided that an excessive deficit existed in six new Member States: Hungary, Poland, the Czech Republic, Slovakia, Cyprus, and Malta. It issued a recommendation in order to correct it (for overviews of excessive deficit procedures and recent abrogations see European Commission, 2008g, and 2007). A number of deadlines were set, ranging from 2005 to 2008, which took

country-specific factors into account. Except for Hungary, the Council considered in January 2005 that all countries had taken effective action. For Hungary the Council had recommended a correction by 2008 and was only satisfied with the measures adopted in July 2007. In June and July 2008, the excessive deficit procedures for Poland, the Czech Republic, and Slovakia were abrogated. The Excessive Deficit Procedure for Cyprus had already been abrogated in June 2006 and for Malta in June 2007. In June 2008, the Commission also issued a policy advice to Romania, urging it to step up the pace of fiscal consolidation. In the light of the current financial crisis, it appears likely that more of the new Member States will soon be subject to the excessive deficit procedure once again.

However, in order to evaluate fiscal performance, it is not only the avoidance of excessive deficits that matters, but also progress towards attaining the medium-term budgetary objectives. The achievement of sound fiscal positions in the medium term protects Member States from running an excessive deficit under adverse economic circumstances. Moreover, it is an absolute necessity in the light of the implicit liabilities building up from ageing.

Graph VII.3.1: Structural budget balances in the new Member States



Source: Commission services

The medium-term budgetary objectives in the new Member States are often rather less ambitious than those in the old ones, which may be justified by the generally lower debt ratios and higher potential growth rates. Moreover, only some of the new Member States have been members of the euro area or the ERM II, and hence subject to the SGP requirement to achieve a reduction of the structural fiscal deficit of 0.5% of GDP annually as a benchmark.

Adjustment towards the medium-term budgetary objectives, or where applicable the preservation of structural fiscal positions at these, has been uneven across the new Member States (Graph VII.3.1). Estonia has remained at or surpassed its medium-term budgetary objective throughout the period since 2004, while Latvia and Lithuania fell short of it more recently. Sizeable improvements (often after earlier deteriorations) were achieved in Hungary, Poland, the Czech Republic, and Slovakia. Slovenia and Cyprus attained their medium-term budgetary objective in 2007, while Malta continued its progress. Romania moved further away from its medium-term budgetary objective from 2007 onwards, while Bulgaria maintained increasingly large structural fiscal surpluses throughout.

3.2. SAFEGUARDING MACRO-FINANCIAL STABILITY

The transition from a centrally planned to a market economy in nearly all the new Member States has triggered strong GDP growth since the

mid-1990s, accompanied by economic volatility, including that of inflation in particular. Healthy growth in credit is a key support for the catching-up process, but it is important to guard against excessively strong cycles in credit, asset prices, the external current account and the real exchange rate, which could jeopardise stability. Banking supervision can play a valuable role here, and so can monetary policy.

Prudent fiscal policy can also make an important contribution to stability by moderating any credit booms (European Commission, 2005c). In particular, it balances strong private investment which causes a widening of the external current account deficit. On the other hand, additional fiscal headroom can prove useful under conditions such as those of the current financial crisis, which threaten confidence. So, during an extended boom, countries should run smaller deficits or larger surpluses than required by the provisions of the SGP in order to ensure debt sustainability and to allow the free play of automatic stabilisers in future downturns. Transparent and credible medium-term budgetary frameworks can be instrumental to this end. In the same context it is important not to overestimate potential growth, and to realise that strong tax gains might in part prove temporary, especially when they occur in periods of rising asset prices (Jaeger and Schuknecht, 2004). A stronger view would be that prudent fiscal policy may trigger higher growth even in the short run, especially through credibility effects (Rzonca and Cizkowicz, 2005).

Table VII.3.2: Volatility in fiscal variables, 2004-2008

standard deviation	Revenues		Primary expenditures		Primary deficit		Implicit interest rate on debt		Debt	
	99-03	04-08	99-03	04-08	99-03	04-08	99-03	04-08	99-03	04-08
BG	0.5	0.8	0.6	1.1	1.4	0.5	0.9	0.5	14.0	9.5
CZ	1.0	0.6	2.3	1.5	1.4	1.0	1.0	0.2	6.0	1.4
EE	0.7	1.0	2.2	2.6	1.9	1.8	0.9	0.3	0.5	0.6
CY	2.2	3.4	3.3	0.8	1.8	2.8	0.4	0.1	4.4	9.0
LV	2.2	1.5	3.0	1.7	0.9	0.9	1.4	0.8	1.0	2.0
LT	2.2	0.9	2.7	1.5	0.8	1.0	1.2	0.1	1.0	0.9
HU	0.7	1.5	2.6	1.3	3.2	2.3	2.1	0.7	2.9	3.0
MT	1.4	0.6	2.6	1.1	1.8	1.1	0.7	0.1	5.3	4.6
PL	0.9	1.4	1.4	0.7	1.6	1.4	0.6	0.2	4.2	1.6
RO	6.3	1.2	3.3	2.3	3.7	1.1	13.5	1.0	1.9	2.7
SI	0.4	1.0	0.4	1.6	0.5	0.7	1.5	0.5	1.7	2.6
SK	1.5	1.4	3.5	1.3	2.9	0.7	1.6	0.4	3.5	5.2
EE, LT, LV	1.7	1.1	2.7	1.9	1.2	1.2	1.1	0.4	0.8	1.2
CZ, HU, PL, SI, SK	0.9	1.2	2.0	1.3	1.9	1.2	1.4	0.4	3.7	2.8
CY, MT	1.8	2.0	3.0	1.0	1.8	1.9	0.5	0.1	4.8	6.8
BG, RO	3.4	1.0	2.0	1.7	2.5	0.8	7.2	0.8	8.0	6.1
NMS	1.7	1.3	2.3	1.5	1.8	1.3	2.1	0.4	3.9	3.6
OMS	1.0	0.8	1.2	1.1	1.8	1.2	0.6	0.3	3.3	3.4

Source: Commission services

The exchange rate regime also matters for fiscal policy. Where monetary policy autonomy is maintained with floating exchange rates, it is important to slow the build-up of borrowing denominated in foreign currency-, which could expose economies to balance-sheet risks. Where the new Member States relinquish domestic control of interest rates for fixed exchange rates, there could be a greater risk of any instability spreading. Thus here the case for prudent fiscal policy is even stronger.

The economies of the new Member States as well as their public finances appear to be more volatile than those of the old Member States. Since accession, however, volatility has been declining. The variability of the interest rate on public debt, in particular, has diminished significantly thanks to the anchor of stability that the EU policy framework provides (Table VII.3.2).

A less stable economy makes economic and fiscal forecasting more difficult (Keereman, 2005) and strengthens the case for a prudent budgetary policy. In particular, general government revenue and primary expenditure (as % of GDP) display a higher degree of variability in the new Member States compared to the old Member States; this can be explained in part by the relatively wider fluctuations in inflation. Also, debt seems to be rather more volatile.

At the country level, the Baltic States and also Romania and Bulgaria appear particularly volatile with respect to primary expenditure, while for Cyprus and Malta the volatility is with respect to revenues and debt. Latvia, Hungary and Romania remain relatively vulnerable to interest rate developments, given the volatility observed for that variable in these countries.

The effects of the current financial crisis on public finances are still difficult to gauge. Deteriorations in headline balances appear likely in most, if not all, new Member States. Overall, this further strengthens the case for sound public finances in the medium term. However, at the current juncture some limited discretionary loosening may also be appropriate in some countries. Indeed the budgetary deteriorations are also partly due to participation in the European Economic Recovery Plan, which focused on 2009 but also covered 2010. This participation is proportionately weaker in the new Member States, given the fact that in some of them growth has been resilient, while others have no fiscal space (indeed, Hungary and Latvia benefit from financial assistance). So the only new Member States which have launched fiscal stimulus packages so far are Poland, the Czech Republic, Slovenia and Malta. Conversely, in Latvia, Lithuania, Hungary, Slovakia, Romania, and Bulgaria, such packages have been non-existent or their size has been negligible.

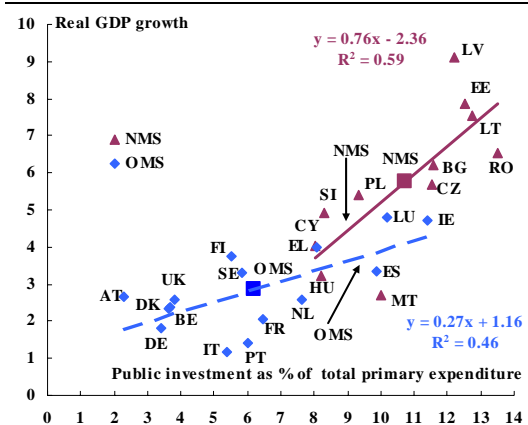
3.3. PUBLIC INVESTMENT AND THE QUALITY OF PUBLIC FINANCES

3.3.1. Public investment and the fiscal stance

Apart from helping to contain any risks to the stability of the economy, fiscal policy can also contribute to the catching-up process of the new Member States through growth-enhancing public investment. Here the focus is on infrastructure, R&D and education. Between 2004 and 2008 a strongly positive relation between public investment and real GDP growth can be observed in the new Member States (Graph VII.3.2).

It could be argued that joining the EU has reduced public investment because of the more stringent fiscal rules. However, the evidence suggests that this is not the case (Jevcak and Keereman, 2008). In most new Member States, including the larger ones which were in EDP, public investment as a share of GDP continued to rise during the period 2004-08 to levels close to 4% on average across countries and over time. These developments differ from those in the old Member States, where public investment remained almost constant during both periods (with an unweighted average of around 2.5% of GDP).

Graph VII.3.2: Public investment, 2004-08



Source: Commission services

There is a broad consensus that fiscal policy can make a contribution to potential growth through supply-side effects (Gemell and Kneller, 2001 and Afonso et al., 2005). So it will be necessary

to determine the extent to which a loosening of the fiscal stance can be taken into consideration in order to cater for this extra public investment.

Over the long term, these two roles of fiscal policy are complementary, because strong growth enhances the economy's debt-carrying capacity. In the short run, however, there can be tensions between safeguarding stability and financing priority programmes. The possibility of such a trade-off in the new Member States has been a matter of recent academic and policy debates on the design of fiscal policy, with varying conclusions being drawn as to the pace of consolidation. While one view taken is that there is potential for supporting growth by accommodating wider fiscal deficits than those prescribed by the SGP in the new Member States, it may also be held that the risks to macro-financial stability dictate a very cautious fiscal stance. A potential trade-off has also to take into account the stabilisation role that fiscal policy has in times of economic hardship as experienced since 2008.

3.3.2. Improving the quality of public finances

Looking beyond public investment proper, there are other dimensions of the quality of public finances that matter for stable convergence (European Commission, 2008d, 2008g). These are (i) debt sustainability, (ii) expenditure composition and (iii) fiscal governance, and these will be discussed in turn.

Debt sustainability

High public debt (and large deficits) impinges on savings and investment decisions and has a negative effect on growth. First, it may raise the real interest rate and thereby crowd out private investment. Second, economic agents who regard the current fiscal policy as unsustainable might increase their savings (or reduce their investments) to protect against future tax increases⁽⁷⁹⁾. And third, ill-designed consolidation efforts to reduce debt, which focus on raising taxes or curbing public investment, may have a negative impact on long-run growth

⁽⁷⁹⁾ This could in part also lead to massive capital outflows.

Table VII.3.3: Growth and the quality of public finances: selected indicators for the EU Member States, 2004-08

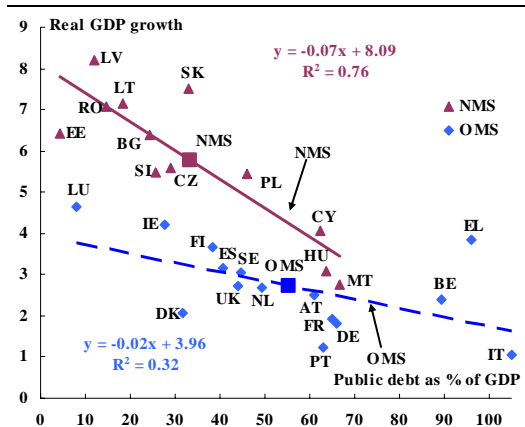
% of GDP except where indicated	EE, LT, LV	CZ, HU, PL, SI, SK	CY, MT	BG, RO	NMS	OMS
Average GDP per capita growth rate	6.0	5.2	2.2	7.2	5.7	1.6
1. The size of the government						
Government expenditure	35.6	43.6	44.0	36.9	40.5	46.4
2. Fiscal balance and sustainability						
Size of budget balance	0.4	-1.0	1.5	1.4	0.1	1.8
Public debt	11.5	39.4	64.5	19.5	33.3	55.3
3. Composition of expenditure						
Consumption	17.8	19.6	19.0	16.7	18.6	20.7
Investment	4.4	3.6	3.7	4.5	4.0	2.6
4. Structure of revenues						
Indirect taxes	12.2	13.5	16.5	15.4	14.0	13.8
Direct taxes	8.5	8.3	11.7	6.3	8.6	14.4
5. Fiscal governance						
Overall fiscal rules index	0.60	0.42	-1.0	0.5	0.23	0.81
Expenditure fiscal rules index	-0.42	0.14	-0.6	0.5	-0.06	0.69

Note: The fiscal rule and expenditure indices are computed as a combination of different indices of coverage and strength. Coverage refers to what part of general government finances is covered by numerical rules, while strength is measured by taking into account five criteria such as the statutory base of the rule or its enforcement mechanisms (European Commission, 2006c).

Source: Commission services

(Tanzi and Chalk, 2002). These effects seem to be more prominent in the new Member States than in the old Member States (Graph VII.3.3), warranting stronger efforts to contain public debt, in spite of the lower debt levels overall in the first group. Furthermore, the new Member States with the lowest debt levels managed to achieve the best growth rates (Table VII.3.3).

Graph VII.3.3: Public debt, 2004-08



Source: Commission services

Moreover, some new Member States run the risk of their public finances becoming unsustainable in the light of the projected costs of pension and long-term care systems (European Commission, 2008g). These developments could eventually also have implications for their long-term growth prospects. The Member States that are classified as high-risk countries are: the Czech Republic,

Hungary, Slovenia and Cyprus. Slovakia and Malta are at medium risk, while Estonia, Lithuania, Latvia and Malta are at low risk (no overall risk assessments have been made yet for Romania and Bulgaria).

The new Member States appear to have acknowledged the risks and have adopted substantive pension and other structural reforms (Box VII.3.1). In order to facilitate implementation, the SGP allows the costs of structural reforms and of systemic pension reforms in particular to be taken into account when determining the appropriate path of structural fiscal adjustment. However, these provisions have been invoked only once - by Lithuania and Latvia in 2005, while with regard to the corrective arm of the Pact they were considered in Poland in 2007, but ultimately were not used given the favourable development of the deficit.

Expenditure composition

Well-designed expenditure policies can help create the conditions for strong growth in the private sector, also via fiscal support for economic restructuring, including the cushioning of distributional hardships. However, the necessary additional fiscal space may also be created by improving the efficiency and effectiveness of expenditure and revenue, rather than simply its composition. For instance, new

expenditure can often be offset by phasing out subsidies and streamlining administration.

The composition of expenditure (Table VII.3.3) reveals slightly higher shares of investment and slightly lower shares of consumption in the Baltic States and in the South-East European countries than in the other Member States. This is likely to have been an influential factor in terms of growth.

Fiscal governance

In the trade-off between budgetary consolidation and spending for catching-up, a strengthening of fiscal rules and institutions provides scope to improve possible difficult choices (for a survey of existing fiscal rules and institutions in most of the new Member States, see Ylaeoutinen, 2004; Gleich, 2003, focuses on the effects of budgetary procedures on fiscal discipline). By improving their budgetary performance, Member States with more developed fiscal rules – such as the Baltic States⁽⁸⁰⁾ – may generate higher growth rates than countries with less developed fiscal rules, such as the central European countries (Table VII.3.3).

⁽⁸⁰⁾ In the new Member States the relationship appears tentatively stronger for overall fiscal rules and not necessarily for expenditure rules).

Box VII.3.1: Reforms of pension systems in the new Member States

As in the old Member States, the recently acceded countries have been facing the population ageing problem, which has adverse implications for the sustainability of public finances and for economic growth. However, the pension systems in the new Member States followed in some respects different development paths from those in the old Member States. First, their point of departure was different, as after the fall of communism their pension schemes continued to be structured along socialist principles. Second, prior to accession to the EU these countries launched significant reforms of which the majority consisted of partial privatisation of pension provision and the creation of mandatory funded private pension schemes. Furthermore, the new Member States have only recently acknowledged the challenge of population ageing, while over the past decade reforms of pension systems within the EU-15 countries were undertaken in response to current and projected consequences of this problem.

The majority of reforms undertaken in the new Member States prior to accession consisted in partial privatization of pension provision and the creation of mandatory funded private pension schemes along the Pay-As-You-Go schemes. "While the possibility of a demographic fiscal crisis may help to explain the propensity to adopt pension privatization in the new Member States, it does not provide a sufficient explanation for this trend" (Orenstein 2008, p.904) as, in general, the new Member States have younger populations compared to the EU-15 countries. A private solution to the pension problem reflects also the general liberalisation process and willingness to embrace the markets in the new Member States. This privatisation of pension provision is a wide movement, taking the form of increasingly shifting risks of employment, longevity and funding from the pension provider to an individual.

According to the projections, in the absence of additional reforms of pension schemes and labour market arrangements, some of the EU-8 countries (e.g. Slovenia, Hungary, the Czech Republic and Cyprus, classified at high risk in the Council Opinions on the Stability and Convergence Programmes) may encounter difficulties securing the sustainability of their pension systems, while

others (including Latvia and Poland) could encounter difficulties securing adequate income for their pensioners. Therefore, it seems that the introduction of mandatory funded pension provisions does not automatically help to reach the goal of sustainable pensions. Moreover, if mandatory funded schemes are to deliver an adequate income for pensioners, they require a reasonable strategy to shoulder the net transition costs of their introduction, a transparent environment where comparability of charge levels is possible and a careful design for the pay-out phase to deal with longevity and inflation risks (Social Protection Committee, 2006).

Although there is a vast diversity of pension systems within the EU as the Member States are ultimately responsible for framing them, all agreed on the following three goals in the long run (European Commission, 2005b):

- adequate retirement incomes and access to pensions that allow to maintain living standards after retirement;
- financial sustainability of public and private pension schemes through balancing contributions and benefits in a socially fair manner. This can be achieved, among others, through supporting longer working lives and active ageing, as well as promoting affordability and security of funded and private schemes;
- transparency of pension systems. Pension systems should respond to needs and aspirations of both women and men, structural changes and demographic ageing.

In sum, in all the EU Member States the statutory Pay-As-You-Go schemes generate a large share of pensioners' income but the role and development of private funded pension provision is very diverse across Member States. It seems, however, that the mandatory funded private pension schemes, complementing the unfunded Pay-As-You-Go ones, are now most widespread in Central and Eastern Europe.

(Continued on the next page)

Box (continued)

Table 1: **Main measures in the Pre-Accession Economic Programs concerning pension reform, and recent or planned reforms in new Member States**

	Funded pillar - development	Reforms planned due to accession	Recently introduced or planned reforms
Czech Republic	no	First pillar: parametric reforms within fiscal consolidation, notional defined contribution reform foreseen for 2010. No plans for the compulsory funded pillar	The reform of 2008 was focused on improving sustainability (gradual increase in the retirement age, increased length of required minimum contribution period, new definition of disability pensions)
Estonia	yes		Recent changes to the indexation of pensions to address the challenge of inadequate pensions in the future
Latvia	yes	More generous indexation rule in the notional defined contribution pillar	Supplements to old-age pensions were introduced in 2006 to alleviate poverty among pensioners, but relative spending on pensions still one of the lowest in the EU
Lithuania	no	Introduction of a voluntarily pillar as of 2004	Establishment of mandatory funded scheme with voluntary opt-in in 2004. Provision of assistance pension was extended in 2006.
Hungary	yes	Gradual introduction of the thirteenth-month pension. Increase contribution rate to mandatory funded pillar	The government intends to limit the thirteenth-month pensions due to difficult situation of public finances
Poland	yes		Reforms in progress: introduction of annuities in the mandatory funded scheme and limiting the number of professions entitled to early pensions
Slovenia	no	Parametric reforms in the first pillar	
Slovakia	yes	Introduction of a compulsory funded pillar planned for 2005	In 2008 the mandatory character of the funded pillar was changed to optional for the new entrants into the labour market

Source: Helmut Wagner (2005), and European Commission (2009, forthcoming)

4. ECONOMIC AND MONETARY UNION

This section reports on the process of euro area enlargement to the new Member States since 2004. The EC Treaty stipulates that the policies of the Member States should be directed towards the introduction of a single currency. EU membership therefore involves the requirement to adopt the euro when a Member State fulfils the necessary conditions⁽⁸¹⁾.

The section first looks at developments in the monetary and exchange rate regimes of the new Member States over the past five years⁽⁸²⁾, going on to examine their progress with nominal convergence since 2004. Subsequently, some stylised facts of the convergence process are explored. Despite being a heterogeneous group, the new Member States do share a number of characteristics (notably related to their economic catching-up process) which tend to accentuate certain convergence-related risk factors such as rapid credit expansion and high external deficits (see also Chapter IV.2). Finally, the section draws some policy conclusions for the new Member States en route towards the adoption of the euro. It underscores the central role of stability-oriented macroeconomic policies, and the importance of enhancing domestic adjustment mechanisms and of containing potential vulnerabilities. This is seen as a prerequisite for a smooth convergence process as well as for the functioning of the economies within the euro area.

4.1. MONETARY AND EXCHANGE RATE ARRANGEMENTS IN THE "PRE-INS"

Since 2004, the euro area has undergone three rounds of enlargement. It has grown from twelve

to sixteen Member States as Slovenia, Cyprus, Malta and Slovakia have joined the group. More countries are set to follow over the next years, although major differences remain between the various candidates in their progress with nominal convergence.

Seven new Member States joined the exchange rate mechanism (ERM II) in the course of 2004 and 2005. The three Baltic countries (Estonia, Latvia and Lithuania) are currently participating in the mechanism, all of them with unilateral exchange rate commitments⁽⁸³⁾. Estonia and Lithuania, in addition to their obligations arising from ERM II membership, maintained their currency board arrangements, while Latvia joined the mechanism with a unilateral +/- 1% fluctuation band against the euro. Bulgaria, the Czech Republic, Hungary, Poland and Romania have not yet entered the mechanism.

Adopting a stylised approach, the "pre-in" new Member States can be divided into two broad groups pursuing fixed and more flexible exchange rate regimes respectively (Table VII.4.1.). One group operates hard pegs vis-à-vis the euro, either through currency board arrangements (Estonia, Lithuania and Bulgaria) or a conventional peg (Latvia). These countries have already been pursuing exchange rate stability for a prolonged period, which has served to anchor expectations and import credibility. Given their generally small size and high degree of openness, they consider the scope for autonomous monetary policy to be limited, and outweighed by risks of excessive exchange rate volatility amid shallow financial markets. Before joining the euro area, Cyprus and Malta had already had a long-standing tradition of currency pegs, although the Maltese lira had to be re-pegged from a basket of currencies to the euro upon ERM II entry.

The second group (the Czech Republic, Poland, Romania and Hungary) operates more flexible exchange rate arrangements. All of them currently have domestic monetary anchors through inflation targeting, supplemented with

⁽⁸¹⁾ The Treaty does not grant to the new Member States the possibility to opt-out from the provisions on economic and monetary union as it does to Denmark and the United Kingdom. On the basis of their special status, legally enshrined in two protocols annexed to the Treaty, Denmark and the United Kingdom can decide whether they intend to steer their policies towards the monetary union and, once they fulfil the necessary conditions, to adopt the euro.

⁽²⁾ Given the very short time that the four new Member States (Slovenia, Cyprus, Malta and Slovakia) have spent in the euro area, this section will mostly focus on convergence-related issues prior to euro area enlargement.

⁽⁸³⁾ Denmark has participated in ERM II since its inception in 1999.

Table VII.4.1: Monetary policy regimes in the new Member States

	Monetary Policy Regime	ERM II participation
Bulgaria	currency board	-
Czech Republic	Inflation targeting; managed float	-
Estonia	Currency board; ERM II	since 28 Jun 2004
Cyprus	Euro area Member State (since 1 Jan 2008)	from 02 May 2005 to 31 Dec 2007 (standard +/-15% band)
Hungary	managed float	-
Latvia	fixed peg within ERM II	since 02 May 2005; unilateral commitment to narrower band of +/- 1%
Lithuania	Currency board; ERM II	since 28 Jun 2004; unilateral commitment to currency board
Malta	Euro area Member State (since 1 Jan 2008)	since 02 May 2005; unilateral commitment to maintain exchange rate at parity
Poland	Inflation targeting; free float	-
Romania	Inflation targeting; free float	-
Slovakia	Euro area Member State (since 1 Jan 2009)	from 28 Nov 2005 to 31 Dec 2008 (standard +/-15% band)
Slovenia	Euro area Member State (since 1 Jan 2007)	From 28 Jun 2004 to 31 Dec 2006 (standard +/-15% band)

Source: Commission services

managed or free floats, although they have taken different paths to reach their current regime. The Czech Republic and Poland have been operating explicit inflation targeting since 1998. Although the central banks in both countries initially missed inflation targets by large margins (Jonas and Mishkin, 2003), stronger implementation and further refinements to the monetary policy frameworks contributed in the early 2000s to disinflation and stabilisation of inflation at low levels. Romania moved to an inflation targeting regime as of August 2005, after moving gradually from a strongly managed float towards a more flexible one. In Hungary, the central bank operated a hybrid framework that combined an inflation target with a unilateral peg of the forint to the euro (with a fluctuation band of +/-15%). In February 2008, the exchange rate bands of the forint were abolished.

The monetary and exchange rate strategies of Slovenia and Slovakia prior to adoption of the euro have differed somewhat from those of the broad groups described above. Slovenia moved from a crawling peg to a tight peg upon ERM II entry. The Slovak monetary policy framework (introduced in 2004), based on explicit inflation targeting and tolerance of exchange rate appreciation, appears to have contributed to low inflation expectations and successful disinflation. In November 2005, the Slovak koruna entered the ERM II with a standard fluctuation band of +/-15%.

4.2. PROGRESS IN NOMINAL CONVERGENCE: 5 YEARS ON

This section provides a bird's eye view on the state of nominal convergence in the new Member States in terms of price stability, public finances, exchange rate stability and long-term interest rates. Since 2004, in line with the requirement based on Article 122(2) of the Treaty, the Commission services and the ECB have prepared three regular Convergence Reports on the progress made by all the new Member States⁽⁸⁴⁾ in fulfilling their obligations regarding the achievement of economic and monetary union.

During the five years after enlargement, the progress in nominal convergence has remained quite diverse across the countries. While some of them have made significant progress and joined the euro area, some of the others have made less progress or have even backtracked. In some cases this has implied a postponement of euro adoption plans (Box VII.4.1) Pursuing nominal convergence faces additional challenges in the current financial crisis environment; while inflation is coming down rapidly in most countries, fiscal balances, exchange rates and

⁽⁸⁴⁾ The convergence assessments in May 2004, December 2006 and May 2008 also covered Sweden. Denmark and the United Kingdom have not yet expressed their wish to adopt the single currency. The Commission and the ECB have also prepared convergence report in response to the requests by Slovenia and Lithuania (May 2006) and Malta and Cyprus (May 2007). Bulgaria and Romania were assessed for the first time in May 2008.

Box VII.4.1: Euro adoption plans of the new Member States

The new Member States have chosen different euro adoption strategies over last five years, notably shaped by country-specific characteristics. The road to the euro has been designed according to preferences of the countries themselves, while reflecting monetary and exchange rate strategies as well as the degree of nominal convergence.

As regards the public announcement of euro target dates, several new Member States publicly announced concrete target dates for introducing the euro over the last five years, in particular as a supplementary instrument to anchor expectations and focus policy efforts. In 2004, the Baltic countries and Hungary were at the forefront of NMS striving to introduce the euro at an earlier stage. The successful euro area entrants Slovenia (2006), Cyprus and Malta (2008) and Slovakia (2009) had pre-announced target dates for euro adoption in due course. At the current juncture, however, the intentions for euro adoption have been amended in a number of cases (Table 1). All three Baltic countries had to decide to postpone the timetable in the course of 2006-2007 in view of difficulties in meeting the convergence criterion on price stability. In Hungary, the earlier 2008 and 2010 targets were abandoned in view of the difficulties encountered in achieving nominal convergence, notably due to substantial fiscal slippages. Hungary has currently severe difficulties in meeting any of the convergence criteria, as diagnosed in the May 2008 Commission services' Convergence Report. Other countries have been more circumspect about their euro adoption intentions.

Poland had not set an official target date for euro adoption after it joined the EU, although recently the government announced the intention of adopting the euro in 2012. The Czech Republic has called-off the initial 2009-2010 target date, due to lagging fiscal consolidation and lack of progress in "economic preparedness" (Czech National Bank, 2008). Among the most recently acceded EU Member States, Bulgaria aims at euro adoption as soon as conditions permit; Romania's approach, by contrast, seems more gradual at this juncture. In the light of the recent global financial crisis, the discussions on euro adoption plans are gaining momentum again in some new Member States (e.g. Hungary and Poland).

Table 1: Intentions for euro adoption

Bulgaria	Aims to adopt the euro as soon as possible
Czech Republic	The latest update of the "Czech Republic's euro area accession strategy" from August 2007 states that some of the preconditions needed for benefiting from the adoption of the euro have yet to achieve satisfactory parameters.
Estonia	Aims to adopt the euro as soon as possible
Hungary	The most recent update of the Convergence Programme does not contain any desired euro area entry date.
Latvia	Aims to adopt the euro as soon as possible
Lithuania	Aims to adopt the euro as soon as possible
Poland	Aims to adopt the euro in 2012
Romania	Not before 2014

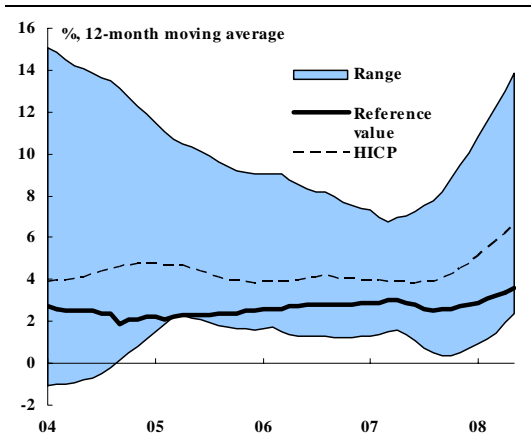
Source: ECB (2008), Ministry of Finance in Poland

long-term interest rates are negatively affected by the current financial turmoil.

Developments in *consumer price inflation* across the new Member States have shown a mixed picture over the past few years (Graph VII.4.1). Most of them saw HICP inflation slow considerably in the run-up to EU membership, down from the double-digit figures often registered until the late 1990s. In 2004, HICP inflation picked up temporarily across the acceding Member States partly as a result of price effects related to EU entry (e.g.

adjustments in indirect taxes). Price pressures moderated somewhat in 2005, but inflation subsequently rebounded strongly across most of the new Member States. The Baltic countries have seen a steep increase in inflation, in response to demand pressures and increasing capacity constraints. In Hungary, increases in indirect taxes and administered prices, as part of the necessary fiscal consolidation, contributed to a sharp increase in consumer prices. Inflation in Bulgaria recorded a sustained upward trend amidst strong demand and wage growth.

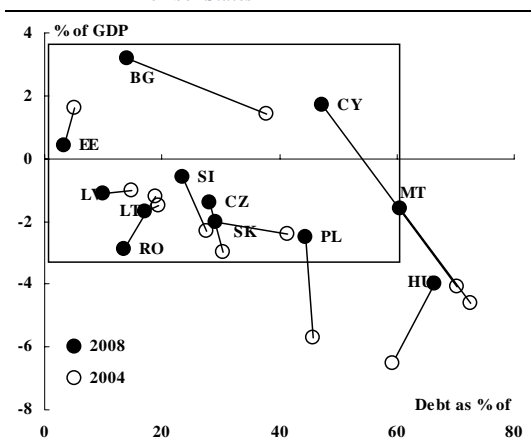
Graph VII.4.1: Inflation criterion in the new Member States



Source: Commission services

Romania succeeded in achieving rapid disinflation, although HICP inflation accelerated again sharply in 2007. Cyprus and Malta have had a longer-standing tradition of relatively low, albeit at times volatile, inflation. In some countries, exchange rate appreciation contributed to dampening pressures (in the Czech Republic, Poland, Slovakia and until mid-2007 also in Romania). From the second half of 2007 onwards, all the new Member States saw a relatively sharp increase in inflation amidst rising energy and food prices.

Graph VII.4.2: General government balance and debt in the new Member States



Source: Commission services

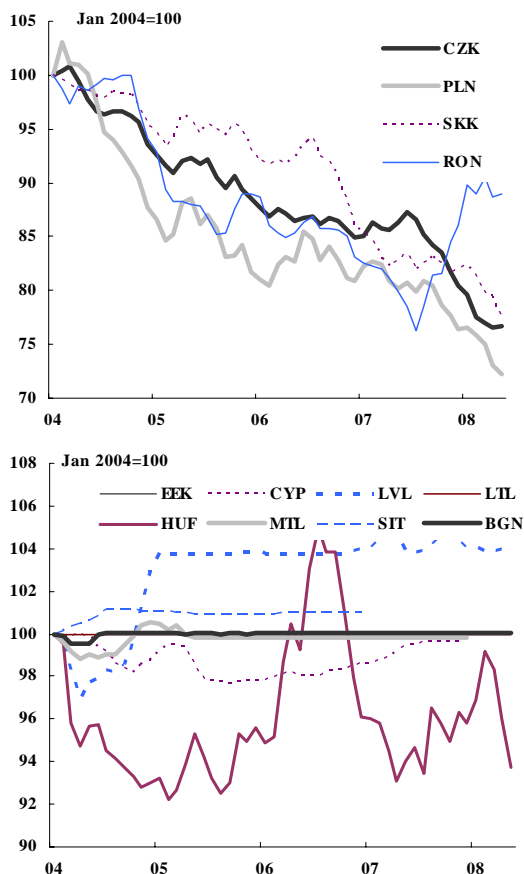
Slovakia was the exception within the group, with developments in inflation on the whole being more favourable than elsewhere, partly due to the trend appreciation of the koruna. More recently, lower commodity prices and the

economic downturn have contributed to a relatively pronounced drop in headline inflation across the new Member States, and weak cyclical conditions are likely to keep inflationary pressures at bay for some time.

The *fiscal position* of the new Member States has improved considerably over the past five years, although substantial differences continue to persist across countries (Graph VII.4.2). Rapid economic growth and the enforcement of fiscal rules within the framework of Stability and Growth Pact contributed to strengthening of fiscal performance. On one side of the spectrum, the Baltic States have low debt levels and relatively contained public deficits or surpluses (as Bulgaria has, too), even though in some cases the fiscal stance ought to have been tighter given the advanced stage of the cycle. In 2007-2008, the Excessive Deficit Procedures of several new Member States (the Czech Republic, Poland, Malta, Slovakia) were abrogated. Hungary has been a fiscal outlier among the new Member States, with high deficits and an increasing government debt ratio. Looking ahead, the ongoing economic downturn will place a heavy burden on public finances in the new Member States, which will to manage fiscal policy in a way that cushions the downturn (depending on the available fiscal space, which is curtailed in some new Member States in view of accumulated imbalances and vulnerabilities), while ensuring that public finances remain on a sound footing over the longer term.

As regards *exchange rate stability* (Graph VII.4.3), membership in ERM II has been mostly smooth for the participating new Member States. With the exception of the Slovak koruna, currencies have traded continuously at or close to their central rates in the mechanism and short-term interest rate differentials vis-à-vis the euro have generally been small. The Slovak koruna followed a strong appreciation trend against the background of sustained FDI-driven increases in relative productivity, leading to revaluations of the central parity in March 2007 and May 2008. In some of the new Member States (e.g. Latvia), the increased risk perceptions by markets have led to a widening of short-term spreads since late 2007 (European Commission, 2008e).

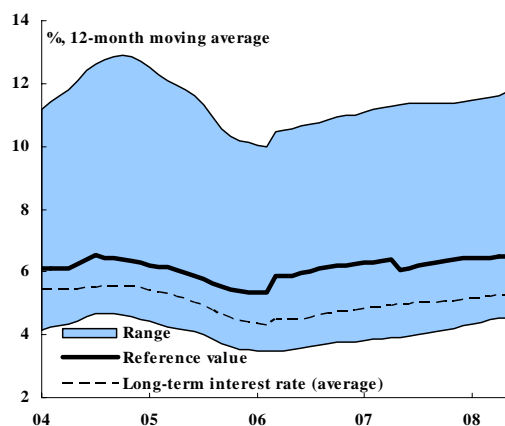
Graph VII.4.3: Euro exchange rates of the new Member States



Source: ECB and EcoWin

The non-ERM II currencies which had floating rates showed a broadly appreciating trend over the last five years, with the exception of the Hungarian forint (in the context of the unilateral wide-band peg). The exchange rates of the Czech koruna and Polish zloty, in particular, followed a strong appreciation path. The Romanian leu appreciated from 2004, but the previous gains were partly corrected from mid-2007 onwards in view of growing concerns among investors about the widening imbalances in the economy. Uncertainties on the exchange rate outlook in the region have sharply increased in recent months, as a global retreat from risk contributed to a correction across the floating currencies of the new Member States, which remain vulnerable to global market sentiment.

Graph VII.4.4: The interest rate criterion in the new Member States



Source: Commission services

The new Member States witnessed a spectacular convergence of *long-term interest rates* already prior the EU accession (Graph VII.4.4), although some degree of country-specific diversity persists across the group. In particular, tight pegs and currency boards were associated with advanced interest rate convergence. Closely related to exchange rate stability and inflation convergence, interest rate spreads – driven by expectations – came down to even narrower levels in the new Member States set to adopt the euro, sometimes already well in advance of euro adoption. Countries with an unfavourable initial position (Romania and Poland) also benefited significantly from the compression of risk premia. Hungary remained the exception within the group, with both money market and long-term spreads remaining at high levels, reflecting concerns about extensive fiscal imbalances in particular. Over the last year, tighter global financing conditions and lower risk appetite have led to a general widening of both short- and long-term spreads among the new Member States, though the impact has been particularly pronounced for those countries that have accumulated large external imbalances and vulnerabilities.

The Treaty (Article 121) requires an examination of other factors relevant to economic integration and convergence. These additional factors include financial and product market integration and developments in the external balance. The next section presents some stylised facts that are also relevant to these areas.

4.3. CHALLENGES OF THE EURO CONVERGENCE PROCESS

A number of studies (e.g. Schadler et al., 2005; European Commission, 2008d) support the notion that the potential benefits from euro area participation for the new Member States as a group are significant, contributing positively to long-term growth and stability. Euro adoption impacts on economic performance through a number of macroeconomic and microeconomic channels; these include adoption of a stability-oriented macroeconomic framework, access to liquid markets, more trade and foreign direct investment, lower transaction costs and increased competition.

Nonetheless, euro adoption entails major economic changes and the requirements for successful participation in the single currency area are demanding. This suggests that the policy debate on euro area membership should be based on broader aspects than just on a static view on the state of nominal convergence (Angeloni, Flad and Mongelli, 2007). In order to reap the full benefits of the single currency, in the absence of a national monetary policy and under an irrevocably fixed exchange rate, economic policy needs to ensure the proper functioning of internal adjustment mechanisms to safeguard stability. In particular, adequate labour and product market flexibility and sufficient fiscal buffers are identified as the main challenges with regard to euro preparedness (Rybinski, 2007; Czech National bank, 2007; National Bank of Poland, 2004; Darvas and Szapáry, 2008). Also, closer integration with the euro area economy should help to reduce vulnerability to asymmetric shocks. In this respect, macroeconomic developments over the past five years suggest some progress in the alignment of economic structures of the new Member States with the euro area (Box VII.4.2), even though they are a heterogeneous group.

However, the specific circumstances of the new Member States do tend to accentuate certain convergence-related risks (see also Chapter IV.2). Countries that have built up large domestic and external imbalances over time are particularly vulnerable in the current context of financial crisis. First, most of them have (as compared to the old Member States) operated in

an environment of robust trend growth over the last years, necessary to achieve real convergence, accompanied by price level convergence and equilibrium real exchange rate appreciation. Secondly, the five years after enlargement have shown that, compared to previous convergence episodes, the catching-up process of the new Member States is embedded in a new environment of globalisation and financial integration (Szekely and Watson, 2007). Their relatively small size, high degree of openness and rapid financial deepening make the new Member States prone to the effects of external shocks. These risks have become particularly apparent in the current context of the global financial crisis, when the retreat from risk and search for liquidity by investors is contributing to heavy pressures on the financial markets of the new Member States.

These two specific challenges faced by the new Member States, examined from the viewpoint of (prospective) euro area entry, are discussed below.

4.3.1. Price level and real convergence

Most of the new Member States have emerged from a transition process and are still catching up in relation to the euro area in terms of relative income levels. Impressive progress in macroeconomic stabilisation and comprehensive supply-side reforms, accentuated by the EU accession process, have enabled most of them to advance with income convergence at a robust pace over the past five years, although diversity among countries is still wide (see also Chapter II.2). In the short term, the new Member States will have to deal with the fall-out from the financial crisis, including a sharp downturn in growth. Indeed, some countries which have gone through an impressive catch-up process over the past years (e.g. the Baltics) have entered recessions, and growth in the region may remain slow for some time. Against this background, completing real convergence is likely to remain a major factor shaping economic policy strategy for most of the new Member States over the medium term, within or outside monetary union.

Box VII.4.2: The theory of Optimum Currency Areas and the new Member States

The literature on Optimum Currency Areas (OCA), pioneered by Mundell (1961) and McKinnon (1963), identifies well-known conditions under which a country would be expected to be able to renounce its own monetary policy. These include (i) business cycle co-movement and convergence of economic structures (minimising the risk of asymmetric shocks), (ii) well-functioning adjustment mechanisms developed to cope with possible shocks (labour and product market flexibility, fiscal capacity). More recent versions of the Optimum Currency Areas approach also highlighted (iii) the degree of financial integration as an indicator for the capacity of the economy to smooth out shocks. Although this approach has been criticised for a number of reasons, it provides a useful conceptual framework to look at the potential enlargement of the euro area.

The degree of alignment of economic structures to the euro area has increased for the new Member States, though a significant degree of country-specific diversity persists:

- As far as trade flows are concerned, the new Member States were relatively well integrated with the broader EU and euro area economy already before EU accession, starting with the signature of bilateral Preferential Trade Agreements. Empirical evidence by Fidrmuc (2005), using a gravity model, found that there was limited room left to increase market shares for the new Member States in the post-accession period, in particular for the larger countries. For most of them, even when the pace of trade integration slowed down as compared to the period of transition in the 1990s, trade ties with the euro area have developed further over recent years (Chapter III.1).

- There is evidence that business cycle synchronisation between the new Member States and the euro area has increased over the medium to long run (Darvas and Szapary, 2008). The picture is, however, more diverse at the country level, where the analysis suggests that the cyclical alignment in some cases (e.g. Slovakia and Slovenia) exceeds the level of some old Member States, while the correlation of business cycles vis-à-vis the euro area is lower e.g. in the Baltic countries (Fidrmuc and Korhonen, 2006).

Overall, the results point to a decreasing susceptibility to asymmetric shocks in the years after EU enlargement, though the results are country-specific and due caution is warranted in interpreting estimation results in view of short data series and possible structural breaks (Chapter VI).

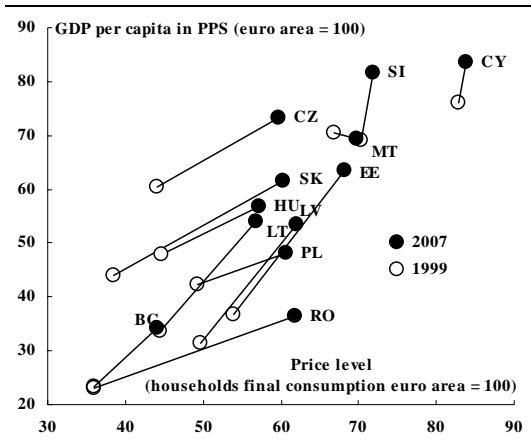
- Sectoral structures of the new Member States are becoming more closely aligned with the euro area over the longer-run, though some differences remain also after EU accession. While agriculture loses ground in most of the new Member States, in line with continuing catching-up, their economies generally still show a higher share of industry and fewer services than in the euro area (Chapter VI European Commission, 2008d).

Relatively large differences remain among the new Member States in terms of the effectiveness of domestic adjustment mechanisms that would play a key stabilisation role within monetary union:

- Measures of labour market flexibility tend to show the new Member States in a better position than the old Member States, which in turn would make them adjust more easily to asymmetric shocks in a monetary union (Chapter VII.2). As compared to the euro area, the degree of employment protection legislation (EPL) appears as less stringent in the four Visegrad countries for which data OECD are available. However, the evidence suggests that progress in labour market flexibility across the new Member States over the past five years has been uneven. Persistently high structural unemployment and low employment rates in some new Member States point to weaknesses in the allocation of labour market resources, while sectoral and regional labour mobility often appears insufficient to cope with potential shocks (European Commission, 2008d).

- Fiscal positions have improved considerably since EU accession. Nonetheless, the degree to which fiscal policy can be an effective instrument to smooth out asymmetric shocks depends also on the structure and quality of public finances (Chapter VII.4.3; European Commission, 2008g).

Graph VII.4.5: Catching-up and price level convergence in the new Member States



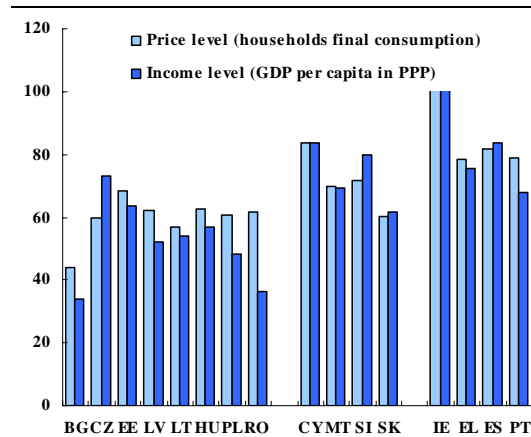
Source: Commission services

Economic catching-up tends to be coupled with a convergence of price levels (Graph VII.4.5). Price levels in the new Member States are still considerably lower than the euro area average, although significant differences remain across the individual countries. The price level gap remains particularly pronounced for services, where prices are on average well below half of the EU-15 level, compared to around two-thirds for goods (European Commission, 2008d). A snapshot of current levels of prices and incomes across the new Member States also compares unfavourably with the "convergence" countries (Greece, Ireland, Portugal and Spain) at the time of their euro area entry. That said, the gap in incomes and price levels between the new Member States currently participating in the euro area (Cyprus, Malta, Slovakia and Slovenia) and "convergence" countries appears somewhat narrower on average, although it does mask country-specific differences (Graph VII.4.6).

Theory suggests that equilibrium real exchange rate appreciation (price level convergence) is a natural consequence of economic catching-up (De Grauwe and Schnabl, 2005). Depending on the monetary strategy and exchange rate regime, appreciation real exchange rate can occur in one of two ways (or a combination of them), namely through an appreciating nominal exchange rate and/or higher domestic inflation. The speed and channels of equilibrium real appreciation in a catching-up context thus have a bearing on the trajectory of nominal convergence. A fixed exchange rate regime (e.g. the Baltic countries),

rules out the nominal exchange rate channel of real appreciation, which implies a higher trend inflation for converging economies than for the anchor area.

Graph VII.4.6: Income and price level convergence at euro entry in convergence countries



Note: Euro area Member States: year of euro adoption; other: 2007
Source: Commission services

One underlying driver of price convergence is the well-known 'Balassa-Samuelson effect', which postulates that wage-induced inflation in the non-tradable sector stems from productivity differentials between tradable and non-tradable sectors (Egert, 2007). However, the empirical evidence on the extent of the Balassa-Samuelson effect is not conclusive and a survey of most recent studies suggests an impact on inflation of below one percent for most new Member States (European Commission, 2008d).

Other factors also have a significant impact on the dynamics of real appreciation. First, the speed of income convergence, domestic demand growth in excess of GDP growth and the exchange rate regime have a significant explanatory power in the determination of price level convergence dynamics (Darvas and Szapáry, 2008). Over a shorter time horizon, some factors - such as the degree of cyclical synchronisation, movements in nominal exchange rates and the differing impact of swings in global commodity and food prices - may draw inflation rates temporarily away from underlying trends in price level convergence. Some structural factors may also work towards lowering inflation in catching-up EU Member States, for instance the impact of trade

liberalisation, dampening import prices and enhancing competition on product markets.

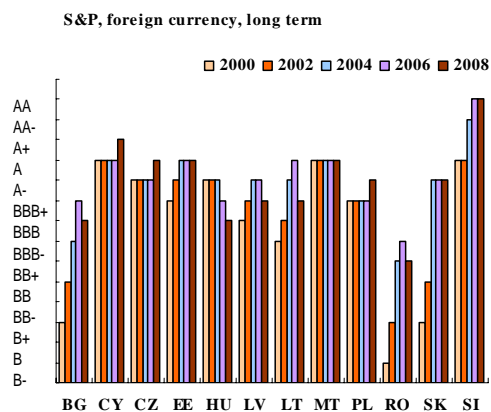
Secondly, not all inflation differentials under catching-up are consistent with ensuring competitiveness and external stability of the economy over the medium term. In some countries, high inflation has been driven by unsustainable demand growth, fuelled by excessively optimistic future expectations of economic agents and/or inappropriate economic policies.

4.3.2. Convergence dynamics in the "post-accession" environment

The strong growth dynamics of the new Member States have often been accompanied, and sometimes driven, by rapid financial deepening and credit expansion (see also Chapter IV.2). At the same time, financial integration of the new Member States into the broader EU financial sector has also advanced strongly in recent last years. The new Member States have in particular been able to mobilise foreign savings on a large scale in a context of real convergence and high returns on investment.

Both short-term and long-term interest rates across the new Member States have converged significantly towards euro-area levels in recent years (Graph VII.4.4). Interest rate convergence has partly reflected a favourable global environment, but has been accentuated by confidence gains in the context of EU accession. Joining the EU and prospects of single currency pushed risk premia further down as it provided a strategic focus and an "umbrella" for credible economic policies that was lacking in other (emerging market) regions. The improvement in country risk perceptions across the new Member States in the years before and after EU accession was mirrored in a steady improvement of sovereign risk ratings. However, more recently credit ratings have been downgraded for some of the new Member States in the context of global financial turmoil (Graph VII.4.7), while risk perceptions increased more generally.

Graph VII.4.7: Sovereign debt ratings in the new Member States, 2000-2008

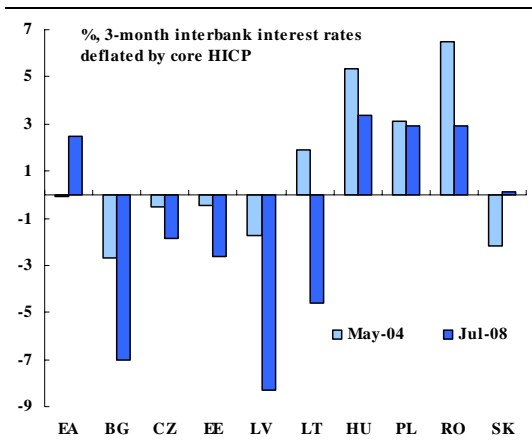


Source: Bloomberg

The Member States with tight pegs and currency boards have received larger capital flows on average (as a percentage of GDP), including FDI, than floating-currency countries and they have run higher current account deficits (European Commission, 2008d). The 'fixers' have been also associated with more advanced interest rate convergence, often implying negative real interest rates (Graph VII.4.1) on account of particularly steep inflation and very rapid credit growth. As an additional factor, it needs to be noted that the 'fixers' among the new Member States generally started their real convergence process from lower output levels, potentially implying higher returns on capital, and therefore an incentive for larger capital inflows, in the earlier phases of catching-up (European Commission, 2008d).

The rapid progress in financial integration of the new Member States is in principle a sign of well-functioning European financial market and is conducive to a more efficient allocation of resources. However, managing rapid financial deepening and large capital inflows can be a challenge (Babecký, Bulíř and Smidková, 2009). The rapid growth of credit and the allocation of capital inflows towards nontradable sectors (notably real estate) may alter the composition of final demand and, as a result, lead to considerable movements in the real exchange rate. Real appreciation (and also external deficits) may become excessive as a result of unduly optimistic expectations by economic agents and/or inappropriate policies (Boz, 2007).

Graph VII.4.8: Real short-term interest rates in the new Member States



Source: Eurostat, Commission services

An 'overshooting' of the real exchange rate may hinder the achievement of fast and sustainable nominal convergence and create additional hurdles on the path towards the euro. Furthermore, growing imbalances pave the way for a potentially painful macroeconomic correction in the years ahead. Credit growth has recently eased across the new Member States in the context of the global financial crisis. This has reflected tighter liquidity conditions as well as higher risk awareness by lenders and borrowers (see also Chapter IV.2). In these exceptional circumstances, financing conditions have deteriorated particularly in countries that have built up large domestic and external imbalances and where foreign currency lending has been common (i.e. in the Baltic States, Bulgaria, Hungary and Romania).

4.4. CONCLUSIONS

Since the 2004 enlargement, four new Member States have fulfilled the necessary conditions for adopting the euro and have joined the euro area. Other new Member States have made some progress in nominal convergence and their economic structures also appear to have converged towards that of the euro area, although there remains a significant degree of country-specific diversity across the group.

There is no single, optimal path towards the euro that can be identified and recommended to all countries at all times. The twelve new Member

States have started from diverse initial conditions and have, over the last five years, pursued various strategies tailored to their own capacities and needs. Policies to prepare for participation in the euro area should take a forward-looking view, aiming to underpin the sustainability of convergence. In particular, the fact that convergence of the new Member States is taking place in a new environment characterised by globalisation and financial integration, has important implications for policy makers in terms of achieving and sustaining nominal convergence.

In the nearer term, the main challenge is to deal with the fall-out from the financial crisis. Countries that have built up large domestic and external imbalances are more vulnerable in the current environment of global financial turmoil. They will have to endeavour to manage an orderly unwinding of these imbalances. This requires efforts to mobilise the full range of domestic policy instruments. A well-balanced macroeconomic policy mix and a responsible wage policy are necessary in order to avoid a potentially painful macroeconomic correction in the years ahead. On the macro-prudential dimension, strong financial supervision is needed in order to ensure the proper functioning of financial sectors. It remains crucial for all Member States to keep progress towards convergence and not to derail policy efforts.

Taking a longer-term view, it is vital to focus policies firmly on the working of internal adjustment mechanisms and on the macro-prudential dimension in order to fully reap the benefits that the single currency can provide. Domestic factor and product markets must be flexible enough to ensure a smooth adjustment to economic and financial shocks. Prospective euro area entrants also need to strive for further progress in fiscal and structural policies along the lines of the SGP (and possibly beyond) and the Lisbon agenda.

5. THE ROLE OF EU TRANSFERS

Member States benefit from significant transfers from the EU budget, to support the various EU policy areas. About one third of the EU budget is channelled through the Structural and Cohesion Funds, which aim to stimulate the competitiveness of regional economies and to help the areas lagging behind to catch up more quickly. The Common Agricultural Policy (CAP), which accounts for roughly half of the EU budget, provides income support to farmers, as well as assistance to the restructuring of the agricultural sector and rural development.

Yet, the accession of twelve new Member States, with per capita incomes (in PPS) at about 54% of the EU-15 average on the date of accession and with a large agricultural sector, has triggered a lively debate on the sustainability of the existing transfer mechanisms. On the one hand, some of the main beneficiaries in the old Member States uttered concerns about losing access to funding. On the other hand, concerns were voiced about the absorption capacity of the new members and the long-run impact of EU funds on growth.

This analysis regards the availability of EU funds as a unique opportunity for the new Member States to speed up the process of catching up with EU living standards. Yet, their potential leverage on long-run growth will crucially hinge on the quality of the domestic policy environment and institutions, both in terms of macroeconomic and fiscal policy management and in terms of individual project selection.

The first part of this section gives an overview of the main types and volumes of EU transfers. The second part focuses on the Regional and Cohesion Policy. It briefly examines the economic rationale for EU transfers, discusses the issue of absorption capacity and reviews both theoretical insights and the empirical evidence available on the long-term impact of these transfers on growth. The third part deals with the impact of transfers related to the Common Agricultural Policy.

5.1. TYPES AND VOLUMES OF EU TRANSFERS

5.1.1. Main types of EU transfers

EU expenditure is predetermined in a multi-annual financial framework, known as the Financial Perspective, which sets out the maximum spending for each main budget category per budget year. For the period 2000-2006, these amounts were fixed in the Financial Perspective 2000-2006, which was later amended by the "Copenhagen Package", specifying the amounts allocated to the Member States which joined in 2004. The current Financial Perspective, covering the period from 2007 to 2013, allocates transfers to Member States under various policy areas and related budget headings ⁽⁸⁵⁾.

The aim of "cohesion for growth and jobs" is to promote three objectives: (i) convergence, (ii) regional competitiveness and employment, and (iii) European territorial cooperation. They mainly target the least developed Member States and regions. For example, the "convergence objective" only covers regions with a GDP per capita of less than 75% of the EU average. The principal financing instruments are the two Structural Funds, namely the European Regional Development Fund (ERDF) and the European Social Fund (ESF) plus the Cohesion Fund (CF). These funds mainly finance investments in infrastructure, human capital and R&D. A small part of the funds (less than 5%) is channelled as direct aid to companies. The policy area of "cohesion for growth and jobs" has become one of the principal instruments for the delivery of the Lisbon agenda.

The bulk of the funds under the "natural resources" heading is spent on the Common Agricultural Policy. It covers expenditure for market measures and direct payments to farmers financed through the European Agricultural Guarantee Fund (EAGF), as well as for rural

⁽⁸⁵⁾ This section focuses on transfers, i.e. EU expenditure that flows back to Member States. They cover between 85% and 90% of the total EU budget. The remaining expenditure consists of, among others, transfers to third countries and administration (e.g. Commission services).

development financed through the European Agricultural Fund for Rural Development (EAFRD). Furthermore, the area of "natural resources" also includes the European Fisheries Fund (EFF), which provides support for economic adjustment in the fisheries sector and fisheries regions ⁽⁸⁶⁾.

During the first three years following accession, the EU budget also includes "compensations" to cover specific areas. In particular, the "Schengen Facility" and "Cash Flow Facility" respectively finance actions at the new external borders of the Union (implementation of the Schengen acquis) and provide funds to safeguard a positive cash-flow in the national budgets upon accession. In addition, the "Transition Facility" aims to strengthen the administrative capacity to implement and enforce Community legislation.

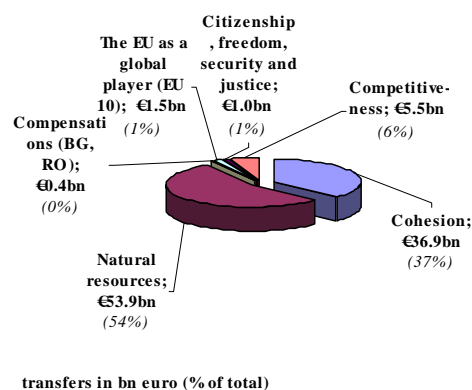
Furthermore, when assessing the volumes and impact of EU funds, it is also relevant to point out that Member States benefited from specific assistance programmes long before accession, with the objective of helping them introduce the necessary political, economic and institutional reforms in line with EU standards. All pre-accession financial instruments are grouped under the budget heading "the EU as a global player"; the main instruments are PHARE (strengthening public administration), ISPA (financing investments in transport and infrastructure) and SAPARD (financing rural and agricultural development projects) ⁽⁸⁷⁾.

Lastly, Member States can also apply for funding for specific projects in the area of "competitiveness" (e.g. in the fields of lifelong learning, transport of energy) and "citizenship, freedom, security and justice".

5.1.2. EU transfers in perspective

In 2007, total transfers from the EU budget to the Member States amounted to €99.2bn, or 0.8% of EU-27 GDP. The policy areas of "cohesion" and "natural resources" represent the bulk of this amount (Graph VII.5.1). While the former covered about 37% of all transfers, the latter accounts for slightly more than half of all resources, of which ¾ was channelled as direct payments to farmers.

Graph VII.5.1: Total transfers to the Member States in 2007



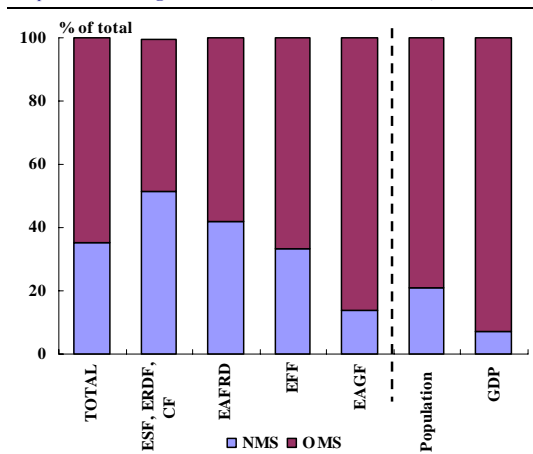
Source: Commission services

In terms of geographical distribution, the new Member States received about 20% of all transfers in 2007. In line with the country allocations in the Financial Perspective 2007-2013, this share will gradually increase up to an average of 35% (by way of comparison, the new Member States represent 20% of the EU-27 population and 7% of the EU-27 GDP; Graph VII.5.2). In the policy area "cohesion for growth and jobs", the EU-12 will actually receive roughly half of all transfers to Member States, reflecting the greater needs of this group in the catching-up process. As regards the CAP, the EU-12 countries will receive 14% of the EU funds for direct payments and 42% of the EU funds for rural development.

⁽⁸⁶⁾ Transfers under the Common Fisheries Policy are not further considered since they will make up less than 2% of the funds under the heading "natural resources" in the new Member States within the Financial Perspective 2007-2013.

⁽⁸⁷⁾ Since 1 January 2007, the 3 preaccession financial instruments, together with specific instruments for Turkey and the Western Balkans, have been grouped under the "Instrument for Pre-accession Assistance".

Graph VII.5.2: Regional distribution of EU transfers, 2007-2013

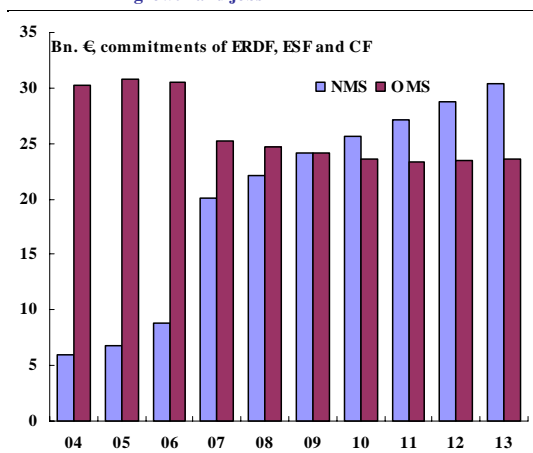


Note: EAGF : preallocated direct payments only, excluding market expenditure

Source: Commission services

In this context, it is also relevant to highlight the fact that some EU funding to the new Member States is phased-in gradually. This applies to funds committed under the policy area "Cohesion for growth and jobs", which will gradually increase over time (Graph VII.5.3). At the same time, the share allocated to the EU-15 will decrease by about one quarter relative to their average level for 2000-2006.

Graph VII.5.3: Phasing-in of funds in the area of cohesion for growth and jobs

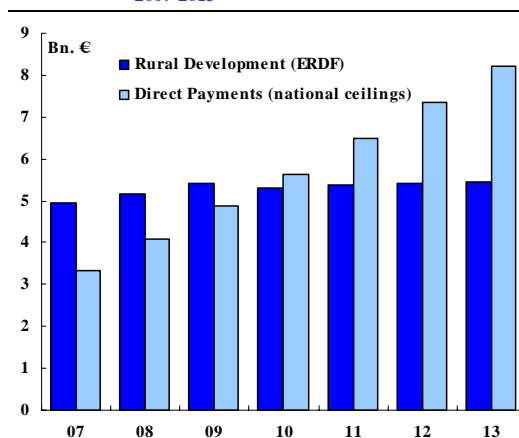


Source: Commission services

Direct payments to farmers are also being gradually phased in, starting with 25% of the EU-15 level in 2004 and reaching the full rate of EU-15 payments in 2013. The new Member States may top up the EU funds by national payments, but only up to the level in the old

Member States (European Commission, 2004). As a result of the phasing-in approach, the EU funds will be allocated almost equally between rural development and direct payments in the new Member States within the current Financial Perspective 2007-2013 (Graph VII.5.4), unlike the situation in the old Member States where more than 80% of the funds will be spent on direct payments.

Graph VII.5.4: EU budget expenditure for direct payments and rural development in the new Member States, 2007-2013



Source: Commission services

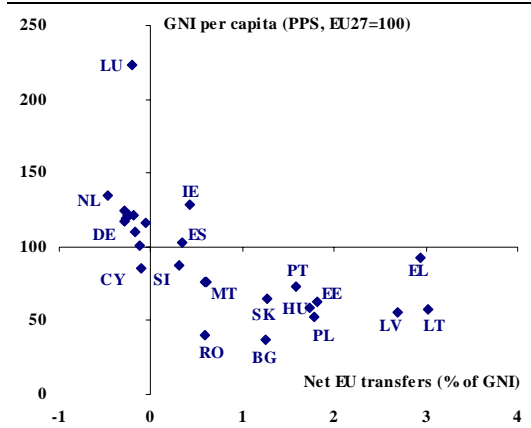
Although the amounts transferred are significant from the point of view of the EU-12, they cannot be regarded as an unbearable burden from the perspective of the old Member States. In 2007, a total of about €17.8bn has been transferred to the new Member States, representing 2.1% of the EU-12 GDP, which -although it is significant-represents only 0.2% of the EU-15 GDP. Even after the phasing-in period, transfers to the new Member States would increase to an estimated 3% of GDP by 2013, while the impact on the old Member States would increase only slightly to 0.3% of GDP.

As from the date of accession, new Member States also contribute to the EU budget. On average, in 2007, the VAT- and GNI-based resources⁽⁸⁸⁾ and the share in the financing of the UK rebate accounted for just under 1% of

⁽⁸⁸⁾ The "traditional own resources" consisting of agricultural duties, sugar levies and customs duties on extra-EU imports are not included in the national contributions as they cannot be assigned to Member States individually.

GNI⁽⁸⁹⁾ for all 27 Member States. Yet, on balance, the new Member States are net beneficiaries of EU transfers. In 2007, net transfers⁽⁹⁰⁾ to the EU-12 were equivalent to 1.3% of their GNI (Graph VII.5.5). In 2007, the old Member States were -on average- net contributors to the EU budget by about 0.1% of their GNI.

Graph VII.5.5: Net EU transfers and GDP per capita in 2007



Source: Commission services

The importance of EU transfers for the new Member States is also evident from their relative share in public sector gross fixed capital formation. In the recently acceded countries, transfers under the policy area "cohesion for growth and jobs", which make up to the bulk of investment-related transfers, amounted to 25% of public gross fixed capital formation in 2007 (against roughly 12% in the old Member States).

5.2. REGIONAL AND COHESION POLICY

5.2.1. The rationale of EU Structural and Cohesion Funds

Before starting to assess the economic impact of EU transfers, this paragraph describes the rationale for such policies. A distinction has to be made between the policy area of "cohesion for growth and jobs", the main aim of which is to boost economic growth and foster cohesion by providing investment support and the area of "natural resources", which principally provides sector-specific assistance to the development of rural and fisheries regions through direct income and investment support. This section will focus on the former, whereas the latter will be discussed in section 5.3.

Legal framework

A basic reference for the rationale of the cohesion policy is Article 158 of the Treaty, which states that, "in order to strengthen its economic and social cohesion, the Community is to aim at reducing disparities between the levels of development of the various regions (...). Cohesion policy should contribute to increasing growth, competitiveness and employment (...)."

The disparities referred to in the Treaty may be a result of the accession of new, relatively poorer members, as was the case with the previous EU accession and the earlier accessions of Ireland, Portugal, Spain and Greece. These disparities may also emerge from increased competition on world markets. Indeed, while more intense competition provides new opportunities for Member States and regions, at the same time it requires adjustment to structural change and management of its social consequences as well as better functioning of the internal market (European Commission, 2008a). Against this background, the Cohesion Policy aims to assist poorer Member States or regions to catch up with other more prosperous areas, mainly by providing investment support. The following paragraphs will summarize the main arguments for public sector involvement in investment and will also highlight some of its limitations.

⁽⁸⁹⁾ The basis for calculating national contributions is national income (GNI), as opposed to domestic production (GDP). Although the difference between both is usually small, for some countries (such as Ireland and Luxembourg), outward factor income generated by FDI and/or border workers is significant, making GDP higher than GNI.

⁽⁹⁰⁾ Calculated as the sum of all previously mentioned transfers to the EU-27, minus the contribution to the EU budget (i.e. VAT- and GNI-based resources).

Economic rationale

The economic underpinnings for the EU Cohesion Policy are based on the new economic geography as well as on the endogenous growth theory. Therefore, location-based considerations around core-periphery relationships are combined with notions that the development and the growth rate of economies crucially hinges on both (possibly external) capital transfers and endogenously created R&D investment and the level of human capital as well as institution building.

In this context, public intervention can be justified in three sets of circumstances. First, market mechanisms may not lead to growth-maximizing allocation of investment in R&D and labour skills. For example markets characterized by positive externalities may lead to under-investment by the private sector, as the benefits of an investment project may accrue not only to the investor but also to society at large (e.g. in the area of R&D). Similarly, the fact that many types of investment involve public goods may also constrain private sector investment, for example in the area of transport infrastructure. Under these circumstances, a well designed and coordinated public action can potentially bring the economy up to a higher growth path.

Second, governments may also intervene if the outcome of market mechanisms is not socially acceptable. In particular, actions may be taken to generate a fairer distribution of wealth across regions. In the presence of market failures, such as increasing returns to scale (e.g. in the context of large fixed costs), factors of production may concentrate in one particular region, leaving other areas at the periphery. This process might ultimately lead to further regional divergence. Hence, governments may decide to stimulate growth and employment creation in remote areas by granting support to firms or by upgrading labour skills in poorer areas.

Third, the Cohesion Policy also aims to improve Member States' institutional capacity to manage public investment programmes. The principle of multilevel governance increases transparency, acceptance and accountability, through the involvement of civil society as key stakeholder.

Caveats concerning public investment

However, it must be stressed that there are also important caveats to public sector involvement, both when raising public funds and when allocating them across different investment projects. On the financing side, part of the benefit of public investment might be eroded by raising distortionary taxes. Also, government intervention, when financed by raising funds on the capital market, may crowd out private investment, through rising interest rates.

With respect to the use of public funds to optimise growth, three main obstacles have been identified (for an overview: Hervé and Holtzmann, 1998): (i) No increase in production capacities, (ii) sub-optimal use of transfers and (iii) changing relative prices due to the inflow of transfers.

Problems of the first type emerge if not all available funds are spent on projects to improve the production capacity of a Member State or a region. Necessarily, part of the available money is spent to cover administration costs related to the planning and monitoring of projects. Furthermore, external transfers may lead national governments to shift part of capital spending to current expenditure, in anticipation of the accrued benefits of externally funded investments (consumption smoothing).

The second type of problems is the sub-optimal use of funds. For example, helping poor regions by providing aid to declining industries may only delay the necessary structural reforms and lead to adverse consequences for their long-run growth prospects. Furthermore, certain regional policy instruments can have adverse effects on the economies of catching-up regions. A classic example is investment in transport links between the core and periphery (Baldwin et al., 2003) which, by lowering the cost of serving the periphery from the prospering region, may lead to a further outflow of firms from the former. This perverse impact of better transport infrastructure is, however, likely to be temporary before a better spatial allocation of factors yield more growth.

Finally, transfers may also cause shifts in relative prices. One example is the so-called Dutch

disease, whereby the demand for factors in the non-tradable sector, boosted by the inflow of transfers, leads to and upward pressure on wage and price levels in this sector and to a decline of the tradable sectors.

With a view of optimizing the use of EU transfers, while limiting some of the risks outlined above, disbursements are subject to the following EU rules. First, Member States should provide national co-financing for 15% of the total project cost⁽⁹¹⁾. The aim of this requirement is to strengthen domestic ownership, as Member States are obliged to contribute with locally raised funds. Furthermore, EU transfers should be considered as "additional", i.e. they are in addition to public capital expenditure. This principle is laid down to avoid instances of national resources being shifted from capital to current spending. Finally, Member States should prioritize investment projects in multi-annual programmes, the "National Strategic Reference Frameworks", which highlight the priority areas for public investment and which indicate, *inter alia* how the funds will contribute to reaching the objectives of the Lisbon Growth and Jobs strategy.

5.2.2. Absorption of EU funds

The essential precondition for the EU cohesion and structural funds to achieve their objective of enhancing real convergence across EU countries and regions is that they are smoothly absorbed by their beneficiaries. The absorption performance of a country is most often measured according to its "absorption rate", defined as the ratio of ex-post amount of EU funds that have been spent to the ex-ante spending targets.

As far as the funds for the 2000-2006 programming period are concerned (Table VII.5.1)⁽⁹²⁾, the absorption of Structural Funds by both the new and old Member States has been very similar (the rate of absorption being 94% for the ten countries that joined in 2004, as

against 91% for the old Member States). By contrast, as compared to the four old cohesion countries (Greece, Ireland, Portugal and Spain), the pace of spending from the Cohesion Fund and ISPA was fairly modest for most new Member States (52% versus 73%, Table VII.5.1). This poorer performance by new Member States suggests that the speed of spending will have to increase in the next years for Bulgaria, Hungary, Poland and Romania, in order to achieve full absorption by the end of 2012, which is the last year in which resources from the 2000-2006 Cohesion Fund can be paid to Member States. On the other hand, the absorption level of several of the smaller new Member States is slightly ahead of schedule.

Table VII.5.1: Absorption rates in programming period 2000-2006

	Structural Funds		Cohesion Fund and ISPA	
	Absorption Rate	Absorption Rate	Amount spent per year 2004-2008 (mio Euro)	Amount to be spent per year 2008-2012 (2) (mio Euro)
	(%)	(%)		
BG (1)	na	40	58	132
CZ	91	66	141	104
EE	95	68	51	34
CY	85	59	6	6
LV	95	71	90	51
LT	95	68	98	67
HU	94	55	133	165
MT	95	80	4	1
PL	94	54	499	651
RO (1)	na	52	181	248
SI	94	64	28	23
SK	95	70	96	57
NMS	94	57	1 436	1 539
OMS	91			
OMS (3)		73	1 631	1 254

Note: (1) As Bulgaria and Romania joined in 2007, data refer to ISPA only; (2) assuming a full absorption by the end of 2010 of the 2000-2006 CF programming; (3) Only Greece, Ireland, Portugal and Spain. Situation as at February 2009.

Source: Commission services

It must be stressed that Member States tend to significantly accelerate their rate of absorption towards the end of the period in which resources from a particular tranche of funds can be claimed. Indeed, this phenomenon has already occurred for the 2004-2006 Structural Funds. has shown a considerable increase every year since the resources became available (Graph VII.5.6).

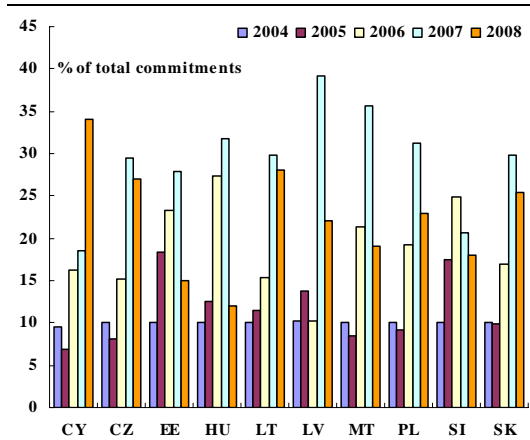
The relatively slow rates of absorption immediately after accession can be explained in part by the natural project cycle: it takes time to prepare investment programmes and project proposals, organize public tender procedures and start up the selected projects. The accelerating absorption profile may also reflect a slow but

⁽⁹¹⁾ The new Financial Perspective 2007-2013 reduced the co-financing rate from 25% to 15%.

⁽⁹²⁾ Spending of funds from the current programming period has not until now taken off for any of the EU-27 Member States. Therefore the absorption rates for this period are not presented in the table.

steady building up of the administrative and financial capacities of Member States. Nevertheless, given that the available structural and cohesion funds for the new Member States will more than triple in the new financial perspective 2007-2013 as compared to the previous programming period, it is clear that this represents a considerable challenge as regards their administrative and institutional capacity.

Graph VII.5.6: Structural funds (ERDF and ESF): absorption in 2004-2008



Source: Commission services

5.2.3. The impact of EU funds

Even a full absorption of EU structural and cohesion funds will not – of itself - guarantee a lasting impact on the growth of the recipient countries or regions. It is therefore necessary to identify the conditions under which the impact of the funds can go beyond the short-term positive demand effects and generate a positive supply response in the long run.

Broadly speaking, there are two approaches to assessing the impact of EU funds: macroeconomic modelling and econometric studies. Macroeconomic models (which include HERMIN used by DG REGIO, QUEST developed by DG ECFIN and the GIMF model of the IMF) can give a rough prediction of the macro-economic impact of transfers and, hence, are frequently used for the purposes of ex-ante ('prospective') evaluation. Econometric models, on the other hand, attempt to measure the ex-post macro-impact of EU transfers directly and are often based on various types of growth regressions. Depending on the underlying

theoretical model, they try to establish an empirical link between the amount of transfers and the output level, output growth, productivity, or productivity growth.

Whereas the model-based approach usually finds ample evidence of positive long-run supply effects (Box VII.5.1), the regression-based analyses yield a more mixed picture, depending on the time period considered, the regions or countries included in the sample and the estimation techniques. The positive outcome of the first approach may be due, at least in part, to the underlying assumption of optimum use of the available resources (no diversion of funds to consumption, optimal selection of projects, etc.). In contrast, the more moderate outcomes of the latter approach may be due to several factors. On the methodological side, they can be explained in part by the difficulty of measuring the long-run effect of EU funds and singling it out from amongst the many other factors that affect growth. Yet, they also reflect that the funds are sometimes used to pursue a variety of goals that are not strictly compatible with the growth-enhancement objective.

A number of broad policy messages emerge from these studies. First, the general rule is that the larger the share of funds used for investment (as opposed to consumption or direct income generation), the higher the impact on growth. This condition guarantees that a maximum amount of resources is directed to increase future supply, as opposed to consumption, thereby avoiding the risk of short-term demand pressures and 'Dutch disease'.

Second, there is a debate concerning the concentration of investment in order to achieve the effect of leverage. For some type of investment (e.g. R&D and innovation), this may require concentrating most funds on a limited number of growth poles in a Member State rather than spreading them across all its regions. The investment in poorer regions may concentrate in turn on improving transmission of technology and innovations from fast growing agglomerations.

Box VII.5.1: Growth impact of EU support - an assessment with the QUEST model

For the period 2007 to 2013, Structural and Cohesion Funds (CSF) programmes for the new Member States amount to a total budget of 173.9 billion euros (in 2008 prices). Because past experience has shown payments typically spread over two more years, the proposed annual payment profile in terms of GDP runs up to 2015 (Table 1). The fields of intervention cover a wide range of policy programmes. Infrastructure investment receives the largest share of funds, more than 60% of the total budget for most new Member States, while investments in human capital and R&D are usually the second or third largest entries (15 and 10 % respectively).

Table 1: **Payment profile for new Member States, 2007-2015**

% of GDP	2007	2013	2015
Bulgaria	1.1	2.2	1.9
CZ	1.2	1.9	1.7
Estonia	1.1	1.9	1.6
Cyprus	0.2	0.4	0.4
Latvia	1.0	2.4	2.0
Lithuania	1.1	2.2	1.9
Hungary	1.0	2.9	2.6
Malta	0.5	2.6	2.4
Poland	1.1	2.2	1.9
Romania	0.7	1.5	1.3
Slovenia	0.6	0.9	0.8
Slovakia	1.1	1.9	1.6
All NMS	1.0	2.0	1.8

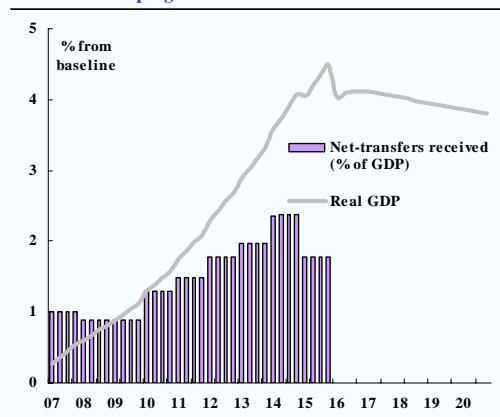
Source: Commission services

For the evaluation of the potential macroeconomic impact of the Cohesion and Structural Funds on the new Member States, we use the QUEST III model, a dynamic stochastic general equilibrium model with human capital accumulation and endogenous technological change (Roeger et al., 2008). The productivity enhancing effect of public infrastructure is modelled via an aggregate final goods production function assuming that investment in public capital increases total factor productivity with a certain output elasticity. The model distinguishes three skill groups and interventions in human capital formation are modelled as increasing the efficiency of each skill group on the basis of available estimates on the impact of the additional years of schooling that these interventions can finance on skill efficiencies. Interventions in research and technological

development are modelled as reductions in fixed costs for R&D, while support to industry and service sectors are also modelled as reductions in their fixed costs.

Initially, GDP increases only gradually in the new Member States (Graph 1) as the demand effects dominate and the CSF spending crowds-out some private spending due to higher inflation, an appreciating exchange rate and higher wage growth. In the first years, GDP increases by less than the fiscal stimulus from the CSF spending. But in the medium run, the positive output effects come to dominate and the increase in productivity from more infrastructure spending, human capital investment and increase in R&D intensity leads to a permanent increase in GDP of as much as 4 %, even after the CSF spending has come to an end.

Graph 1: **GDP effects of Cohesion Social Fund programmes**



Source: Commission services

It should be pointed out that these simulations assume an efficient use of the Cohesion and Structural Funds, which may be considered an optimistic assumption given the potential absorption problems mentioned (Herve and Holzman, 1998).

Results are also highly sensitive to specific assumptions on certain model parameters, like for instance the output elasticity of public infrastructure, on which there exists much uncertainty in the empirical literature.

Third, the investment mix matters. Spending on infrastructure as well as on training and education appears generally productive, even though the returns on education are likely to take a considerable time to materialize. On the other hand, measures supporting cultural, sport-related or social housing projects generally have little impact on growth. Moreover, certain types of interventions, such as State aid for large companies, have often been found to be counterproductive or may potentially involve huge deadweight losses and should be made only in special and properly justified cases.

Fourth, the role of the macroeconomic policy is crucial to creating a stable framework for the economic development of Member States. Indeed, macroeconomic stability (low inflation, an appropriate current account balance, healthy public finances) has been found to correlate with growth (see, for example, Ederveen et al., 2002, on the importance of low inflation). Stable macroeconomic conditions have a direct positive impact on economic agents by reducing the economic uncertainty that these agents face. Indirectly, they also favourably affect the volume of FDI inflows, which are needed in order to increase the rate of innovation and enable international spillovers.

Last but not least, a favourable business environment creates conditions that are conducive to achieving a higher impact of the EU Funds. Flexible product and labour markets should lead in the longer term to the disappearance of enclaves of low productivity (Boldrin and Canova, 2001). Openness also creates favourable conditions for FDI inflows, which is one of the main channels of technology transfers. Lastly, the objective of developing the SME sector requires reducing the administrative burden, improving the quality of the judiciary system and making the legal and fiscal environment of enterprises less uncertain.

5.3. COMMON AGRICULTURAL POLICY

With accession, the new Member States also joined the common agricultural market and policy. The SAPARD programme already provided support between 2000 and 2006 to assist the candidate countries in preparing the

farm and food sector for accession. Since accession, the new Member States have also access to EU funding for the direct payments and regular rural development programmes of the Common Agricultural Policy (CAP). The new Member States have moreover implemented the whole range of market support instruments including common tariffs to third countries, export subsidies, intervention purchases as well as production quotas for milk and sugar⁽⁹³⁾.

A particular challenge has been to improve the productivity of the agricultural and food sector in the new Member States. Low productivity resulting from limited capital endowments and a low use of inputs such as fertilisers, pesticides or equipment and sometimes fragmented farm structures has been characteristic for agriculture in the acceding Central and Eastern European countries. Moreover, a little productive food processing sector had to adapt to EU food quality standards (Pouliquen, 2001; IAMO, 2004). Many factors play a role in the necessary restructuring and modernisation of primary production and food processing such as an appropriate institutional framework ensuring access to capital or functioning land markets, the inflow of foreign direct investments as well as the general economic dynamics determining job alternatives outside agriculture and well developed social security systems (Popp, 2005). The persistence of subsistence-like farming in some new Member States, for example, indicates a social buffer function of agriculture in economic transition.

The SAPARD programme and the rural development policy have directly supported the restructuring and modernisation in the food sector such as through co-financing investments in agricultural equipment and food processing. This has contributed to increased technological standards, compliance with animal hygiene and welfare regulations and environmental requirements, improved employment opportunities and professional skills, new

⁽⁹³⁾ The ongoing CAP reform process has gradually shifted the support instruments towards direct payments to farmers and increasing rural development expenditure and has therefore reduced the share of market price support in total support to EU agriculture from almost 90% in the late 1980s to around one third recently (OECD, 2008).

business opportunities in rural areas and the development of information technology and other infrastructure. Direct payments provide farmers moreover with stable and predictable income which may improve the conditions for investments in productivity and the access to capital.

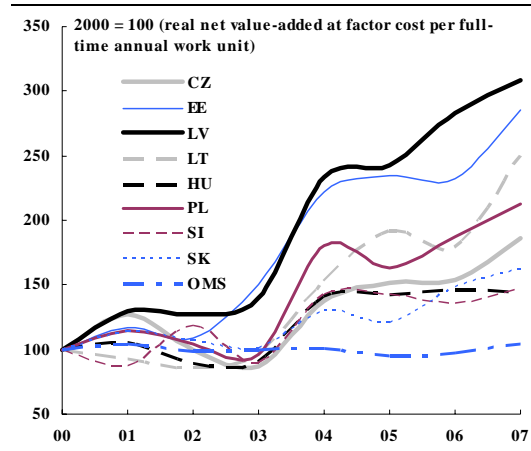
Structural change has resulted in a reduction of 583,000 (15%) full-time jobs in agriculture in the EU-10 between 2000 and 2007, thus in a period before and after accession. These reductions have been most pronounced in Estonia (44%), Slovakia (39%), Lithuania (36%) and Hungary (26%) and rather moderate in Slovenia (15%), the Czech Republic (13%), Latvia (13%) and Poland (8%), compared to an average decrease in agricultural employment of 13% in the old Member States. This indicates that the restructuring process does not run at the same pace as it is influenced by a number of factors and reflects different levels of competitiveness and structural patterns.

The moderate decline in the case of the Czech Republic can be explained by its relatively competitive structures with an average farm size of 84ha and an average labour input of 4.3 full-time annual work units per 100ha, compared to the average of the old Member States with 21ha per farm and 4.8 work units per 100ha (all figures for 2005). At the same time, the slower pace of restructuring in some countries tends to conserve relatively uncompetitive structures such as in the case of Poland with an average farm size of only 6ha and an average labour input of 15 work units per 100ha. However, these numbers hide a wide differentiation within Member States and the dual structure of commercial and subsistence-like farming.

All in all, accession has triggered strong increases in farm incomes in the new Member States with most spectacular surges in the Baltic countries (Graph VII.5.7). Real incomes per full-time farmer more than tripled between 2000 and 2007 in Latvia, more than doubled in Estonia, Lithuania and Poland and increased by more than 50% in the Czech Republic and Slovakia. This growth in incomes per farmer can most likely be attributed to the access to the Single Market, the introduction of the CAP instruments as well as structural change with a decreasing number of

farmers. In contrast, average real farm incomes in the old Member States have been more or less stable in recent years. Accession and the introduction of the CAP have therefore contributed to increasing productivity and to narrowing the income gap between agriculture and other economic sectors in the new Member States.

Graph VII.5.7: Real agricultural income development in selected Member States, 2000-2007



Source: Eurostat

However, regional growth may be hampered by an unfavourable industrial structure dominated by agriculture that limits the role of the manufacturing and service sectors as drivers of growth and technological innovation (Cappelen et al., 2003; Deller, Gould and Jones, 2003). The effectiveness of regional support policies is therefore also linked to structural change in agriculture, which in turn depends on economic growth outside the farm sector and resulting off-farm employment opportunities. Regional growth and the restructuring of the agricultural sector are hence interdependent, which should be reflected in a coherent policy design. Income support for agriculture, for example, should also be seen in the context of accelerating structural change undertaken through regional and rural development policies.

While generally not necessarily the case, there is a danger that relatively slow restructuring of the farm sector in some new Member States in combination with strong income increases due to a considerable inflow of transfers could affect economic growth in rural regions, if it impeded

economic restructuring and the movement of labour from agriculture to other sectors or raised regional wages (Chaplin, Davidova and Gorten, 2004; Desmet and Ortuño Ortín, 2007). Such potential effects should be considered when analysing the distribution of direct payments in the EU. Considerable increases of direct payments as a result of a more uniform distribution of public support among farmers in the EU can help ease and accompany the transition process in agriculture, but could also increase the potential for unintended (regional) economic side effects.

REFERENCES

- Abiad, A., D. Leigh and A. Mody (2007), 'International finance and income convergence: Europe is different', *IMF Working Paper* WP/07/64.
- Acemoglu, D., S. Johnson and J. Robinson (2005), 'Institutions as the fundamental cause of long-run growth', in: Aghion, P. and S. Durlauf (eds.): *Handbook of Economic Growth*, Elsevier.
- Adams, T. (2006), 'The IMF: Back to basics', in E. M. Truman (ed.): *Reforming the IMF for the 21st century*, Washington DC: Institute for International Economics, pp. 133-138.
- Afonso, A. and D. Furceri (2007), 'Sectoral business cycle synchronization in the European Union', *Working Papers*, No. 2007/02, Department of Economics at the School of Economics and Management (ISEG), Technical University of Lisbon.
- Afonso, A. et al. (2005), 'Quality of public finances and growth', *ECB Working Paper*, No. 438.
- Agénor, P.-R. (2003), 'Benefits and costs of international financial integration: theory and facts', *World Economy*, Vol. 26, pp. 1089-1118.
- Aláez-Aller, R. and M. Barneto-Carmona (2008), 'Evaluating the risk of plant closure in the automotive industry in Spain', *European Planning Studies*, Vol. 16, pp. 61-80.
- Alfaro, L. and A. Charlton (2007), 'Intra-industry foreign direct investment', *NBER Working Papers*, No. 13447.
- Allard, C. et al. (2008), 'Macroeconomic effects of EU transfers in new Member States', *IMF Working Paper*, No. 08/223.
- Altomonte, C. (2007), 'Regional economic integration and the location of multinational firms', *Review of World Economics*, Vol. 143, pp. 277-305.
- Andersen, P. and R. Moreno (2007), 'Financial integration: an overview', *BIS Papers*, No. 23.
- Angeloni, I., M. Flad and F.P. Mongelli (2007), 'Monetary integration of the new EU Member States: What sets the pace of euro adoption?', *Journal of Common Market Studies*, Vol. 45, No. 2, pp. 367-409.
- Artis, M., M. Marcellino and T. Proietti (2003), 'Dating the euro area business cycle', *CEPR Working Paper*, No. 3696, January.
- Artis, M., M. Marcellino and T. Proietti (2004), 'Characterising the business cycles for accession countries', *CEPR Discussion Paper*, No. 4457.
- Artis, M., J. Fidrmuc and J. Scharler (2008), 'The transmission of business cycles Implications for EMU enlargement', *The Economics of Transition*, Vol. 16, No. 3, pp. 559-582.
- Asdrubali, P., B. Sorensen and O. Yosha (1996), 'Channels of interstate risk sharing: United States 1963-1990', *Quarterly Journal of Economics*, Vol. 111, pp. 1081-1110.
- Asian Development Bank (2006), *Development Outlook*.
- Athukorala, P. (2006), 'Singapore and ASEAN in the New Regional Division of Labour', *Departmental Working Papers*, No. 2006-11, Australian National University.
- Axarloglou, K. and P. Kouvelis (2007), 'Hysteresis in adjusting the ownership structure of foreign subsidiaries', *International Business Review*, Vol. 16, pp. 494-506.
- Baas, T., H. Brücker and E. Hönekopp (2007), 'EU-Osterweiterung, Beachtliche Gewinne für die deutsche Volkswirtschaft', *IAB Kurzbericht*, No. 6.
- Babecký, J., A. Bulíř and K. Smídková (2009), 'Sustainable Real Exchange Rates in the New EU Member States: Is FDI a Mixed Blessing?', *European Economy – Economic Papers*, Economic and Financial Affairs DG, European Commission, forthcoming.
- Backé, P. et al. (2004), 'The acceding countries' strategies towards ERM II and the adoption of the euro: an analytical review', *ECB Occasional Paper Series*, No. 10.

- Backus, D.K., P.J. Kehoe and F.E. Kydland (1992), 'International real business cycles', *Journal of Political Economy*, Vol. 100, pp.745-775.
- Baele, L. et al. (2004), 'Measuring financial integration in the euro area', *ECB Occasional Paper Series*, No. 14, April.
- Baldwin Robert E. (2003), 'Openness and growth: what's the empirical relationship?' *NBER Working Paper*, No. W9578.
- Baldwin, R. (2006), 'Managing the Noodle Bowl: the Fragility of East Asian regionalism', *CEPR Discussion Paper*, No. 5561.
- Baldwin, R., J. Francois and R. Portes (1997), 'The costs and benefits of eastern enlargement: the impact on the EU and central Europe', *Economic Policy*, Vol. 12, issue 24, pp. 125-176.
- Baldwin, R., et al. (2003), *Economic geography and public policy*, Princeton University Press.
- Baldwin, R., H. Braconier and R. Forslid (2005), 'Multinationals, endogenous growth, and technological spillovers: theory and evidence', *Review of International Economics*, Vol. 13, pp. 945-963.
- Baltagi, B. H., P. Egger, and M. Pfaffermayr (2007), 'Estimating models of complex FDI: Are there third-country effects?', *Journal of Econometrics*, Vol. 140, pp. 260-281.
- Baltzer, M. et al. (2008), 'Measuring financial integration in new EU member states', *ECB Occasional Paper*, No. 81.
- Barrell, R., J. Fitz Gerald and R. Riley (2007), 'EU enlargement and migration: assessing the macroeconomic impacts', *NIESR Discussion Paper*, No. 292.
- Barrell, R. and N. Pain (1999), 'Domestic institutions, agglomerations and foreign direct investment in Europe', *European Economic Review*, Vol. 43, pp. 925-934.
- Barrios, S. et al. (2008), 'International taxation and corporate location decisions', *CEPR Discussion Paper*, No. 7047.
- Barro, R., and X. Sala-i-Martin (2004), *Economic Growth*, MIT Press, London.
- Barry, F. (2004), 'Prospects for Ireland in an enlarged EU', *The World Economy*, Vol. 27, No. 6, pp. 829-852.
- Basile, R., D. Castellani and A. Zanfei (2008), 'Location choices of multinational firms in Europe: the role of EU cohesion policy', *Journal of International Economics*, Vol. 74, pp. 328-340.
- Basu, P. and A. Guariglia (2007), 'Foreign direct investment, inequality, and growth', *Journal of Macroeconomics*, Vol. 29, pp. 824-839.
- Becker, J. and C. Fuest (2007), 'Tax competition and firm mobility: an assessment of empirical findings', *Intereconomics*, Vol. 3, pp 120-127.
- Bellak, C. and M. Leibrecht (2008), 'Do low corporate income tax rates attract FDI? Evidence from Central and East European countries', *Applied Economics*, forthcoming.
- Bellak, C., M. Leibrecht and A. Riedl (2008), 'Labour costs and FDI flows into Central and Eastern European countries: a survey of the literature and empirical evidence', *Structural Change and Economic Dynamics*, Vol. 19, pp. 17-37.
- Bellak, C., M. Leibrecht and R. Römisch (2007), 'On the appropriate measure of tax burden on foreign direct investment to the CEECs', *Applied Economics Letters*, Vol. 14, pp. 603-606.
- Bénassy-Quéré, A., M. Coupet and T. Mayer (2007), 'Institutional determinants of foreign direct investment', *The World Economy*, Vol. 30, pp. 764-782.
- Bennett, J., S. Estrin and G. Urga (2007), 'Methods of privatization and economic growth in transition economies', *The Economics of Transition*, Vol. 15, pp. 661-683.
- Bergsten, C. F. (2006), 'A new steering committee for the world economy', in E. M Truman (ed.): *Reforming the IMF for the 21st century*, Washington DC: Institute for International Economics, pp. 279-92.

- Bertelsmann Foundation (2006), *Bertelsmann Transformation Index 2006 – towards democracy and a market economy*, Verlag Bertelsmann Stiftung.
- Berthélemy, J-C. and M. Maurel (2009), ‘The consistency of EU foreign policies towards new member states’, *European Economy – Economic Papers*, Economic and Financial Affairs DG, European Commission, forthcoming.
- Bertoldi, M., C. Just and R. Wichern (2009), ‘Long-term trends in the world economy: implications for the international financial architecture and the euro area’, *European Economy - Economic Papers*, Economic and Financial Affairs DG, European Commission forthcoming.
- Bevan, A. A. and S. Estrin (2004), ‘The determinants of foreign direct investment into European transition economies’, *Journal of Comparative Economics*, Vol. 32, pp. 775-787.
- Bini-Smaghi, L. (2004), ‘A single seat in the IMF?’, *Journal of Common Market Studies*, Vol. 42, pp. 229–48.
- Bini-Smaghi, L. (2006a), ‘Powerless Europe: Why is the euro area still a political dwarf?’, *International Finance*, Vol. 9, No. 2, pp. 1–19.
- Bini-Smaghi, L. (2006b), ‘IMF governance and the political economy of a consolidated European seat’, in E. M. Truman (ed.): *Reforming the IMF for the 21st century*, Washington DC: Institute for International Economics, pp. 279–292.
- Bitzer, J., I. Geishecker and H. Görg (2008), ‘Productivity spillovers through vertical linkages: evidence from 17 OECD countries’, *Economics Letters*, Vol. 99, pp. 328-331.
- Blalock, G. and P. J. Gertler (2008), ‘Welfare gains from foreign direct investment through technology transfer to local suppliers’, *Journal of International Economics*, Vol. 74, pp. 402-421.
- Blanchflower, D., J. Saleheen and C. Shadforth (2007), ‘The impact of the recent migration from Eastern Europe on the UK Economy’, *IZA Discussion Paper*, No. 2615.
- Blonigen, B. A. et al. (2007), ‘FDI in space: spatial autoregressive relationships in foreign direct investment’, *European Economic Review*, Vol. 51, pp. 1303-1325.
- BMW (2007), ‘Auswirkung der EU-Erweiterung auf Wachstum und Beschäftigung in Deutschland und ausgewählte Mitgliedstaaten. Bisherige Erfahrungen und künftige Entwicklungen unter besonderer Berücksichtigung der EU-Beitritte Bulgariens und Rumäniens’, *Untersuchung im Auftrag des Bundesministeriums für Wirtschaft und Technologie (BMW)*, Projekt 33/05.
- Boeri, T. and P. Garibaldi (2006), ‘Are labour markets in the new Member States sufficiently flexible for EMU?’, *Journal of Banking and Finance*, Vol. 30, pp.1393-1407.
- Boeri, T. et al. (2001), ‘The impact of eastern enlargement on employment and wages in the EU Member States’, Employment and Social Affairs DG, European Commission.
- Boldrin, M. and F. Canova (2001), ‘Inequality and convergence in Europe's regions: reconsidering European regional policies’, *Economic Policy*, Vol. 16(32), pp. 205-253.
- Borensztein, E., J. De Gregorio and J.-W. Lee (1998), ‘How does foreign direct investment affect economic growth?’, *Journal of International Economics*, Vol. 45, pp. 115-135.
- Boyer, J. and E. M. Truman (2005), ‘The United States and the large emerging-market economies: Competitors or partners’, in C. F. Bergsten (ed.): *The United States and the world economy: Foreign economic policy for the next decade*, Washington DC: Institute for International Economics.
- Boz, E. (2007), ‘Can miracles lead to crises? The role of optimism in emerging markets crises’, *IMF Working Paper*, No. 07/223.
- Breuss, F. (2002), ‘Benefits and Dangers of EU Enlargement’, *Empirica*, Vol. 29, No. 3, pp. 245-274.
- Breuss, F. (2009), ‘An Evaluation of the EU's fifth enlargement with special focus on Bulgaria

- and Romania', *European Economy – Economic Papers*, Economic and Financial Affairs DG, European Commission, forthcoming.
- Bronzini, R. (2007), 'FDI Inflows, Agglomeration and Host Country Firms' Size: Evidence from Italy', *Regional Studies*, Vol. 41, pp. 963-978.
- Brouwer, J., R. Paap and J.-M. Viaene (2008), 'The trade and FDI effects of EMU enlargement', *Journal of International Money and Finance*, Vol. 27, pp. 188-208.
- Brücker, H. (2007), 'Labor mobility after the EU's Eastern enlargement : Who wins, who loses ?' A report to the German Marshall Fund of the United States.
- Brücker, H. et al. (2008), 'Labour mobility within the EU in the context of enlargement and the functioning of the transitional arrangements', *mimeo*, European Integration Consortium, IAB Nuremberg.
- Brücker, H. et al. (2009), 'Labour mobility within the EU in the context of enlargement and the functioning of the transitional arrangements', Study carried out on behalf of the European Commission, Employment, Social Affairs and Equal Opportunities DG, forthcoming.
- Buch, C. M., J. Kleinert and F. Toubal (2006), 'Where enterprises lead, people follow? Links between migration and FDI in Germany', *European Economic Review*, Vol. 50, pp. 2017-2036.
- Buiter, W. and A. Sibert (2006), *Beauties and the beast. When will the new EU members from Central and Eastern Europe join the euro zone?*
- Bunyaratavej, K., E.D. Hahn and J. P. Doh (2007), 'International offshoring of services: a parity study', *Journal of International Management*, Vol. 13, pp. 7-21.
- Busse, M. and C. Hefeker (2007), 'Political risk, institutions and foreign direct investment', *European Journal of Political Economy*, Vol. 23, pp. 397-415.
- Buti, M., W. Roeger and A. Turrini (2007), 'Is Lisbon far from Maastricht? Trade-offs and complementarities between fiscal discipline and structural reforms', *CEPR Discussion Paper*, No. 6204.
- Calvo, G. and C. Reinhart (2002), 'Fear of Floating', *Quarterly Journal of Economics*, Vol. 107, No. 2, pp. 379-408
- Cappelen, A. et al. (2003), 'The impact of EU regional support on growth and convergence in the European Union', *Journal of Common Market Studies*, Vol. 41, No. 4, pp. 621-644.
- Cass, F. (2007), 'Attracting FDI to transition countries: the use of incentives and promotion agencies', *Transnational Corporations*, Vol. 16, pp. 77-122.
- Castellani, D., I. Mariotti and L. Piscitello (2008), 'The impact of outward investments on parent company's employment and skill composition: evidence from the Italian case', *Structural Change and Economic Dynamics*, Vol. 19, pp. 81-94.
- Chaplin, H., S. Davidova and M. Gorton (2004), 'Agricultural adjustment and the diversification of farm households and corporate farms in Central Europe', *Journal of Rural Studies*, Vol. 20, No. 1, pp. 61-77.
- Cheptea, A., L. Fontagné and S. Zignago (2008), 'Underlying economic factors determining EU Member States' trade policy stance' report prepared for the European Commission, Trade DG, CEPII-CIREM Atlas Consortium.
- Chinn, M. and K. Kletzer (2000), 'International capital inflows, domestic financial intermediation and financial crises under imperfect information', *NBER Working Paper*, No. 7902.
- Christiano, L.J. and T.J. Fitzgerald (2003), 'The Band Pass Filter', *International Economic Review*, Vol. 44, No.2, May, pp. 435-65
- Clausing, K. A. and C. L. Dorobantu (2005), 'Re-entering Europe: does European Union candidacy boost foreign direct investment?', *The Economics of Transition*, Vol. 13, pp. 77-103.

- Collins, C. and A. Senhadji (2002), 'Lending booms, real estate bubbles and the Asian crisis', *IMF Working Paper*, No. 20.
- Coricelli, F., B. Égert and R. MacDonald (2006), 'Monetary transmission mechanism in Central & Eastern Europe: gliding on a wind of change,' *William Davidson Institute Working Papers Series*, No. 850.
- Council of the European Communities (2002), 'Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive)', OJ L 108/34.
- Council of the European Communities (2003), 'Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty', OJ L 1, 04.01.2003, pp. 1-25.
- Cowen, D., R. Salgado, H. Shah, L. Teo and A. Zanello (2006), 'Financial Integration in Asia: Recent Developments and Next Steps', *IMF Working Paper*, No. 196.
- Crespo, N. and M.P. Fontoura (2007), 'Integration of CEECs into EU market: structural change and convergence', *Journal of Common Market Studies*, Vol. 45, No. 3, pp. 611-632.
- Crespo-Cuaresma, J., M.A. Dimitz and D. Ritzberger-Grunwald (2002), 'Growth, convergence and EU membership', *OeNB Working Papers*, No. 62.
- Crozet, M., T. Mayer and J.-L. Mucchielli (2004), 'How do firms agglomerate? A study of FDI in France', *Regional Science and Urban Economics*, Vol. 34, pp. 27-54.
- Csajbok, A. and A. Csermely (2002), 'Adopting the euro in Hungary: expected costs, benefits and timing', *MNB Occasional Paper*, No. 24.
- Czech National Bank (2007), 'The Czech Republic's updated euro-area accession strategy', Joint Document of the Czech Government and the Czech National Bank, August.
- Danninger, S. and F. Joutz (2007), 'What explains Germany's rebounding export market share?', *IMF Working Paper*, No. 07/24.
- Darvas, Z. and G. Szapáry (2008), 'Euro area enlargement and euro adoption strategies', *European Economy - Economic Papers*, No. 304, Economic and Financial Affairs DG, European Commission.
- Darvas, Z. and G. Szapáry (2008), 'Business cycle synchronization in the enlarged EU', *Open Economics Review*, Vol. 19, No. 1, pp. 1-19.
- Daude, C. and E. Stein (2007), 'The quality of institutions and foreign direct investment', *Economics & Politics*, Vol. 19, pp. 317-344.
- D'Auria, F., K. Mc Morrow and K. Pichelmann (2008), 'Economic impact of migration flows following the 2004 enlargement process: a model based analysis', *European Economy - Economic Papers*, No. 349, Economic and Financial Affairs DG, European Commission.
- De Benedictis, L. and L. Tajoli (2008), 'Similarity in trade structures, integration and catching-up', *Economics of Transition*, Vol. 16, No. 2, pp. 165-182.
- De Benedictis, L. and L. Tajoli (2005), *Patterns of trade, delocalisation choices and catching-up*, University of Macerata, Italy.
- De Grauwe, P. and G. Schnabl (2005), 'Nominal versus real convergence: EMU entry scenarios for the new Member States', *Kyklos*, Vol. 58, No. 4, pp. 537-555.
- De Propris, L. and N. Driffield (2006), 'The importance of cluster for spillover from FDI and technology sourcing', *Cambridge Journal of Economics*, Vol. 30, pp. 277-291.
- Deller, S. C., B.W. Gould and B. Jones (2003), 'Agriculture and rural economic growth', *Journal of Agricultural and Applied Economics*, Vol. 35, No. 3, pp. 517-527.
- Demekas, D. G. et al. (2007), 'Foreign direct investment in European transition economies – The role of policies', *Journal of Comparative Economics*, Vol. 35, pp. 369-386.

- Demirgüç-Kunt, A. and E. Detragiache (1998), 'Financial liberalisation and fragility', *IMF Working Paper*, No. 83.
- Demyanyk, Y. and V. Volosovych (2007), 'Gains from financial integration in the European Union: evidence for new and old Members', *Federal Reserve Bank of St. Louis Working Paper*, 2007-01.
- Desmet, K. and I. Ortuño Ortín (2007), 'Rational underdevelopment', *Scandinavian Journal of Economics*, Vol. 109, No. 1, pp. 1-24.
- Directorate General for Economic and Financial Affairs (2001), 'The economic impact of enlargement', *Enlargement papers*, No. 4, June.
- Dollar, D., M. Hallward-Driemeier and T. Mengistae (2006), 'Investment climate and international integration', *World Development*, Vol. 34, pp. 1498-1516.
- Doyle, B.M. and J. Faust (2002), 'An investigation of co-movements among the growth rates of the G-7 countries', *Federal Reserve Bulletin*, October, pp. 427-437.
- Doyle, N., G. Hughes and E. Wadensjö (2006), 'Freedom of movement for workers from Central and Eastern Europe: experiences in Ireland and Sweden', *Swedish Institute for European Policy Studies* (Sieps), No. 2006:5.
- Dreger, C. et al. (2007), 'Price convergence in the enlarged Internal Market', *European Economy - Economic Papers*, No. 292, Economic and Financial Affairs DG, European Commission.
- Dulleck, U. et al. (2005), 'Dimensions of quality upgrading – Evidence from CEECs', *Economics of Transition*, Vol. 13, No. 1, pp. 51–76.
- ECB (2001), 'The economic policy framework in EMU', *ECB Monthly Bulletin*.
- ECB (2004), *Report on EU Banking Structures*.
- ECB (2007), *EU Banking Structures*.
- ECB (2008), *Bond markets and long-term interest rates in non-euro area member states of the European Union*, Statistical Tables, January.
- ECB (2008), *Monthly Bulletin*, Special Issue.
- Economist, The (2008), 'In the nick of time', article May 29th 2008.
- Eden, L. (2001), 'Transfer pricing, intrafirm trade and the BLS international price program', *Bureau of Labor Statistics Working Paper*, No. 334.
- Ederveen, S., H. de Groot and R. Nahuis (2002), 'Fertile soil for Structural Funds?', *Tinbergen Institute Discussion Paper*, No. 2002-096/3.
- Égert, B. (2007), 'Real Convergence, price level convergence and inflation differentials in Europe', *OeNB Working Paper*, No. 138.
- Eichengreen, B. and Y. C. Park (2005), *Why has there been less financial integration in Asia than in Europe?*, Ford Foundation, New York.
- Eickmeier, S. and J. Breitung (2006), 'How synchronized are new EU member states with the euro area? Evidence from a structural factor model', *Journal of Comparative Economics*, Vol. 34, No. 3, pp. 538-563.
- Elschner, C. and M. Overesch (2007), 'Trends of corporate tax levels in Europe', *Intereconomics*, Vol. 3, pp. 127-132.
- Eurobarometer (2007a), 'Observatory of European SMEs: Volume Tables A', No. 196, November, The Gallup Organization.
- Eurobarometer (2007b), 'Observatory of European SMEs: analytical report', No. 196, November, The Gallup Organization.
- European Bank for Reconstruction and development (2007), *Transition report 2007: People in Transition*.
- European Commission (2004), *Enlargement and agriculture*, Agriculture and Rural Development DG.

- European Commission (2005a), 'The application of the Postal Directive (Directive 97/67/EC as amended by Directive 2002/39/EC)', Report to the Council and the European Parliament, 23.03.2005, COM (2005) 102 final, page 3.
- European Commission (2005b), 'Working together, working better: A new framework for the open coordination of social protection and inclusion policies in the European Union', Communication to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, COM (2005) 706 final.
- European Commission (2005c), 'Public Finances in EMU 2005', *European Economy*, No. 3.
- European Commission (2006a), 'Enlargement, Two Years After', *European Economy - Occasional Papers*, No. 24, Economic and Financial Affairs DG.
- European Commission (2006b), 'Report on the functioning of the transitional arrangements set out in the 2003 Accession Treaty (period 1 May 2004–30 April 2006)', Communication, COM(2006) 48 final.
- European Commission (2006c), 'Public Finances in EMU 2007', *European Economy*, No. 3.
- European Commission (2006d), 'Inquiry pursuant to Article 17 of Regulation (EC) No 1/2003 into the European gas and electricity sectors', Communication, 10.1.2007, COM(2006) 851 final.
- European Commission (2006e), 'The application of the Postal Directive (Directive 97/67/EC as amended by Directive 2002/39/EC)', Report to the Council and the European Parliament, 18.10.2006, COM(2006) 595 final.
- European Commission (2007a), 'A Single Market for citizens', Interim report to the 2007 Spring European Council', COM(2007) 60 final, February.
- European Commission (2007b), 'Progress Report on the Single European Communications Market 2007 (13th report)', Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, 19/3/2008, COM(2008) 153.
- European Commission (2007c), 'Towards common principles of flexicurity', Communication, COM (2007) 359 final.
- European Commission (2007d), 'Commission state aid scoreboards', 13.12.2007, COM (2007) 791 final.
- European Commission (2007e), 'The EU Economy 2007 Review - Moving Europe's productivity frontier', *European Economy*, No. 7, Economic and Financial Affairs DG.
- European Commission (2007f), 'Labour Market Reforms in the euro-area', *Quarterly Report of the Euro Area*, Vol. 6, No. 4, Economic and Financial Affairs DG.
- European Commission (2007g), 'Proposal for a Directive of the European Parliament and of the Council amending Directive 2003/54/EC concerning common rules for the internal market in electricity', EC(2007) 1179, SEC(2007) 1180, Brussels, 19.9.2007
- European Commission (2008a), 'The results of the negotiations concerning cohesion policy strategies and programmes for the programming period 2007-2013', Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, COM (2008) 301/4.
- European Commission (2008b), 'Think small first. A small business act for Europe', COM (2008) 394 final.
- European Commission (2008c), 'Stepping up the fight against undeclared work', Communication, COM (2007) 628 final.
- European Commission (2008d), 'EMU@10: successes and challenges after 10 years of Economic and Monetary Union', *European Economy*, No. 2, Economic and Financial Affairs DG.

- European Commission (2008e), '2008 Convergence Report', *European Economy*, No. 3, Economic and Financial Affairs DG.
- European Commission (2008f), 'Geographic Mobility in the context of EU enlargement', *Employment in Europe 2008 report*, Chapter 3.
- European Commission (2008g), 'Public Finances in EMU 2008', *European Economy*, No. 4.
- European Commission (2008h), 'Recent Labour Market Reforms in the euro area: characteristics and estimated impact', *Quarterly Report of the euro area*, Vol. 7, No. 1, Economic and Financial Affairs DG.
- European Commission (2008i), 'Economic Forecast, Autumn 2008', *European Economy*, No. 6.
- European Commission (2008j), 'The LIME assessment framework: a methodological tool to compare, in the context of the Lisbon Strategy, the performance of EU Member States in terms of GDP and in terms of twenty policy areas affecting growth', *European Economy - Occasional Papers*, No. 41, Economic and Financial Affairs DG.
- European Commission (2009), *Joint Report on Social Protection and Social Inclusion 2009*, forthcoming.
- European Innovation Scoreboard (2008), *Scores in the European Innovation Scoreboard*, June.
- Fabrizio, S., D. Igan and A. Mody (2007), 'The dynamics of product quality and international competitiveness', *IMF Working Paper*, No. 07/97.
- Fabrizio, S., D. Leigh and A. Mody (2009), 'The second transition: Eastern Europe in perspective', *European Economy - Economic Papers*, Economic and Financial Affairs DG, European Commission, forthcoming.
- Fabry, N. and S. Zeghni (2006), 'How former communist countries of Europe may attract inward foreign direct investment? A matter of institutions', *Communist and Post-Communist Studies*, Vol. 39, pp. 201-219.
- Faini R. and R. Portes (1995), 'European Union trade with Eastern Europe: adjustment and opportunities', *Centre for Economic Policy Research*, London.
- Falcetti, E., T. Kysenko and P. Sanfey (2006), 'Reforms and growth in transition', *Journal of Comparative Economics*, 34, 421-55.
- Falk, M. and Y. Wolfmayr (2008), 'Services and materials outsourcing to low-wage countries and employment: empirical evidence from EU countries', *Structural Change and Economic Dynamics*, Vol. 19, pp. 38-52.
- Fidrmuc, J. (2004), 'The endogeneity of the optimum currency area criteria, intra-industry trade, and EMU enlargement', *Contemporary Economic Policy*, Vol. 22, pp. 1-12.
- Fidrmuc, J. and I. Korhonen (2006), 'Meta-analysis of the business cycle correlation between the euro area and the CEECs', *Journal of Comparative Economics*, Vol. 34, pp. 518-537.
- Fitch ratings (2005), *Bank systemic risk report*, July.
- Fitch ratings (2008), *Bank systemic risk report*, October.
- Fosfuri, A., M. Motta and T. Rønde (2001), 'Foreign direct investment and spillovers through workers' mobility', *Journal of International Economics*, Vol. 53, pp. 205-222.
- Fotopoulos, G. (2008), 'European Union regional productivity dynamics: a 'distributional' approach', *Journal of Regional Science*, Vol. 48, pp. 419-454.
- Frankel, J. A. and A. K. Rose (1998), 'The endogeneity of the optimum currency area criteria', *Economic Journal*, 108, pp. 1009-1025.
- Frankel, J. A. and A. K. Rose (2000), 'Estimating the effect of currency unions on trade and output', *CEPR Discussion Paper*, No. 2631.
- Fry, M. (1978), 'Money and capital or financial deepening in economic development', *Journal of*

- Money, Credit and Banking*, Vol. 10, pp. 464-475.
- Funke, M. and R. Ruhwedel (2005), 'Export variety and economic growth in East European transition economies', *Economics of Transition*, Vol. 13, pp. 25-50.
- Garcia-Herrero, A. and P. Wooldridge (1997), 'Global and regional financial integration: progress in emerging markets', *BIS Quarterly Review*, September, pp. 57-70.
- Gayer, C. (2007), 'A fresh Look at business cycle synchronisation in the euro area', *European Economy - Economic Papers*, No. 287, Economic and Financial Affairs DG, European Commission.
- Gemmell, N. and R. Kneller (2001), 'The impact of fiscal policy on long-run growth', in European Commission: 'Current Issues in economic growth', *European Economy - Reports and Studies*, No. 1, pp. 99-129.
- Giannetti, M. and S. Ongena (2005), 'Financial integration and entrepreneurial activity: evidence from foreign bank entry in emerging markets', *ECB Working Paper*, No. 498.
- Giannetti, M. and S. Ongena (2007), 'Lending by example: direct and indirect effects of foreign bank presence in emerging markets', Second Symposium of the ECB-CFS Research Network on Capital Markets and Financial Integration in Europe.
- Gibson, H. and E. Tsakalatos (2005), 'EU enlargement, EU II and lessons from the Southern European countries', *South Eastern Europe Journal of Economics*, Vol. 1, pp. 41-78.
- Gleich, H. (2003), 'Budget institutions and fiscal performance in Central and Eastern European countries', *ECB Working Paper*, No. 215.
- Grabbe, H. (1999), 'A Partnership for accession? The implications of EU conditionality for the Central and East European Applicants', *Robert Schuman Centre Working Paper*, No. 12/99, European University Institute.
- Grassini, M., R. Bardazzi and A. Missale (2001), 'Eastern enlargement of the EU: economic costs and benefits for the EU present member states? The Italian case', Study BUDG/B1/0001, Budget DG, European Commission.
- Hallak, J.C., and P. Schott (2008), 'Estimating cross-country differences in product quality,' *NBER Working Paper*, No. 13807.
- Haller, S. A. (2008), 'The impact of multinational entry on domestic market structure and investment', *International Review of Economics & Finance*, forthcoming.
- Hallet, M. (2004), 'Fiscal effects of accession in the new Member States', *European Economy - Economic Papers*, No. 203, Economic and Financial Affairs DG, European Commission.
- Hausman, J. A. (1978), 'Specification tests in econometrics', *Econometrica*, Vol. 46, No. 6, November, pp. 1251-1271.
- Havik, K. and K. Mc Morrow (2006), 'Global trade integration and outsourcing: how well is the EU coping with the new challenges?', *European Economy - Economic Papers*, No. 259, Economic and Financial Affairs DG, European Commission.
- Heijdra, B., C. Keuschnigg and W. Kohler (2004), 'Eastern enlargement of the EU: jobs, investment and welfare in present Member countries' in Berger, H. and T. Moutos (eds.): *Managing EU enlargement*, MIT Press, pp. 173-210.
- Helpman, E. and A. Razin (1978), *A theory of international trade under uncertainty*, New York: Academic Press.
- Heritage Foundation (2008), *Index of economic freedom*.
- Herrmann, S. and A. Winkler (2009), 'Real convergence, financial markets, and the current account - Emerging Europe versus emerging Asia', *European Economy - Economic Papers*, Economic and Financial Affairs DG, European Commission, forthcoming.

- Herve, Y. and R. Holzmann (1998), *Fiscal transfers and economic convergence in the EU: an analysis of absorption problems and an evaluation of the literature*, Baden-Baden: Nomos Verlagsgesellschaft.
- Hilbers, P. et al. (2005), 'Assessing and managing rapid credit growth and the role of supervisory and prudential policies', *IMF Working Paper*, No. 151.
- Huber, P. (2007), 'Regional labour market developments in transition: a survey of the empirical literature', *European Journal of Comparative Economics*, Vol. 4, pp. 263-298.
- Hufbauer, C.G. and J.C. Chilas (1974), 'Specialization by industrial countries: extent and consequences' in H. Giersch (ed.): *The international division of labour: problems and perspectives*, Tübingen: Mohr.
- Hummels, D., J. Ishii and K. Yi (2001), 'The nature and growth of vertical specialization in world trade', *Journal of International Economics*, Vol. 54, No. 1, pp 75-96.
- IAMO (2004), 'The future of rural areas in the CEE new Member States', Report for the European Commission of the Network of Independent Agricultural Experts in the CEE Candidate Countries, Halle (Saale).
- Imbs, J. (2004a), 'Trade, finance, specialization and synchronization', *Review of Economics and Statistics*, Vol. 86, No. 3, pp. 723-734.
- Imbs, J. (2004b), 'The real effects of financial integration', *Journal of International Economics*, Vol. 68, No. 2, pp. 296-324.
- IMF (2004a), *World Economic Outlook*, April.
- IMF (2004b), 'Adopting the Euro in Central Europe - Challenges of the next step in the European Integration', *IMF Occasional Paper*, No. 234.
- IMF (2006a), 'Regional Economic Outlook Report for Asia and Pacific', May.
- IMF (2006b), 'Regional Economic Outlook Report for Asia and Pacific', September.
- IMF (2007), 'Regional Economic Outlook Report for Asia and Pacific', May.
- IMF (2008), 'Regional Economic Outlook. Europe: Reassessing Risks', April.
- Inklaar, R., R. Jong-A-Pin and J. De Haan (2008), 'Trade and business cycle synchronization in OECD countries: a re-examination', *European Economic Review*, Vol. 52, No. 4, pp. 646-666 .
- Hoj, J. et al. (2006), 'The political economy of structural reforms', *OECD Economics Department Working Papers*, No. 501.
- Jaeger, A. and L. Schuknecht, (2004), 'Boom-bust phases in asset prices and fiscal policy behaviour', *IMF Working Paper*, No. 54.
- Jevcak, A. and F. Keereman (2008), 'Challenges for public investment in new EU Member States' in: Schwartz et al., (eds.): *Public investment and public-private partnerships: addressing infrastructure challenges and managing fiscal risks*, New York: Palgrave Macmillan, pp. 36-60.
- Jinjarak, Y. (2007), 'Foreign direct investment and macroeconomic risk', *Journal of Comparative Economics*, Vol. 35, pp. 509-519.
- Jonas, J. and F. S. Mishkin (2003), 'Inflation targeting in transition countries: experience and prospects,' *NBER Working Papers*, No.9667.
- Jungnickel, R. et al. (2008), 'International mobility of jobs – diversion from Western to Eastern locations?', *Structural Change and Economic Dynamics*, Vol. 19, No. 3, pp. 260-271.
- Kahanec, M. and K. Zimmermann (2009), 'Migration in an enlarged EU: A challenging solution?', *European Economy – Economic Papers*, Economic and Financial Affairs DG, European Commission, forthcoming.
- Kalemli-Ozcan, S., B. E. Sørensen and O. Yosha (2003), 'Risk sharing and industrial specialization: regional and international evidence', *American Economic Review*, Vol. 93, pp. 903-918.

- Kalotay, K. (2008), 'FDI in Bulgaria and Romania in the wake of EU accession', *Journal of East-West Business*, Vol. 14, pp. 5-40.
- Kawai, M. (2007), 'Evolving economic architecture in East Asia', *Asian Development Bank Institute Discussion Paper*, No. 84.
- Kawecka-Wyrzykowska, E. (2009), 'Evolving pattern of intra-industry trade specialization of the new Member States of the EU: role of foreign direct investments – case of automotive industry', *European Economy – Economic Papers*, Economic and Financial Affairs DG, European Commission, forthcoming.
- Keereman, F. (2005), 'Economic forecasts and fiscal policy in the recently acceded Member States', *European Economy - Economic Papers*, No. 234, Economic and Financial Affairs DG, European Commission.
- Keuschnigg, C., M. Keuschnigg and W. Kohler (2001), 'The German perspective on Eastern EU enlargement', *The World Economy*, 24, 513-542.
- Keuschnigg, C. and W. Kohler (2002), 'Eastern enlargement of the EU: how much is it worth for Austria?', *Review of International Economics*, 10(2), 324-342.
- Klein, M. (2005), 'Capital account liberalization, institutional quality and economic growth: theory and evidence', *NBER Working Paper*, No. 11112.
- Ko, C. (2006), 'What do the sources and uses of funds tell us about credit growth in Central and Eastern Europe?', *European Economy - Occasional papers*, No. 26, Economic and Financial Affairs DG, European Commission.
- Kohler, W. (2004), 'Eastern enlargement of the EU: a comprehensive welfare assessment', *Journal of Policy Modelling*, Vol. 26, pp. 865–888.
- Kolasa, M. (2008), 'How does FDI inflow affect productivity of domestic firms? The role of horizontal and vertical spillovers, absorptive capacity and competition', *Journal of International Trade & Economic Development*, Vol. 17, pp. 155-173.
- Kolstad, I. and E. Villanger (2008), 'Determinants of foreign direct investment in services', *European Journal of Political Economy*, Vol. 24, pp. 518-533.
- Kose, A. et al. (2006), 'Financial globalisation: a reappraisal', *IMF Working Paper*, No. WP/06/189.
- Kravtsova, V. (2008), 'Foreign presence and efficiency in transition economies', *Journal of Productivity Analysis*, Vol. 29, pp. 91-102.
- Kristensen, T. and P. Rørmose Jensen (2001), 'Eastern enlargement of the EU: economic costs and benefits for the EU present Member States? The case of Denmark', European commission, DG Budget, Study BUDG/B1/0001.
- Krugman, P. (1993), 'Lessons from Massachusetts for EMU', in Torres, F. and F. Giavazzi (eds.): *Adjustment and Growth in the European Monetary Union*, Cambridge: Cambridge University Press, pp. 241-261.
- Kugler, M. (2006), 'Spillovers from foreign direct investment: within or between industries?', *Journal of Development Economics*, Vol. 80, pp. 444-477.
- Kutan, A. M. and G. Vukšić (2007), 'Foreign direct investment and export performance: empirical evidence', *Comparative Economic Studies*, Vol. 49, pp. 430-445.
- Lane, Ph. and G.M. Milesi-Ferretti (2003), 'International financial integration', *IMF Staff Papers*, Vol. 50, pp. 82-113.
- Lane, Ph. and G.M. Milesi-Ferretti (2006), 'Capital flows to Central and Eastern Europe', *IMF Working Paper*, No. 188.
- Lee, G. (2006), 'The effectiveness of international knowledge spillover channels', *European Economic Review*, Vol. 50, pp. 2075-2088.
- Lejour, A.M., R.A. de Mooij and R. Nahujs (2001), 'EU enlargement: economic implications for countries and industries', *CESifo Working Paper*, No. 585.

- Lejour, A., H. Rojas-Romagosa and G. Verweij (2008), 'Opening services markets within Europe: modelling foreign establishments in a CGE framework', *Economic Modelling*, Vol. 25, pp. 1022-1039.
- Lemagnen, P. (2005), 'SSC waves break over Europe', *fDi Magazine*, 12 April.
- Lemos, S. and J. Portes (2008), 'New Labour? The impact of migration from the new European Union Member States on the UK labour market', *IZA Discussion Paper*, No. 3756.
- Levine, R. (1997), 'Financial development and economic growth: views and agenda', *Journal of Economic Literature*, Vol. 35, pp. 688-726.
- Lewer, J. and H. Van den Berg (2003), 'How large is international trade's effect on economic growth?', *Journal of Economic Surveys*, Vol.17, No.3, pp. 363-396.
- Lewis, K. (1999), 'Trying to explain home bias in equities and consumption', *Journal of Economic Literature*, Vol. 37, pp. 571-608.
- Liu, Z. (2008), 'Foreign direct investment and technology spillovers: theory and evidence', *Journal of Development Economics*, Vol. 85, pp. 176-193.
- London Economics and RPA (2008), *Competition in the service sector: an initial screening for market monitoring purposes*.
- Longhi, S., P. Nijkamp and J. Poot (2004), 'A meta-analytic assessment of the affect of immigration on wages' *Tinbergen Institute Discussion Paper*, No. 2004-134/3.
- Longhi, S., P. Nijkamp and J. Poot (2006), 'The impact of immigration on the employment of natives in regional labour markets: a meta-analysis', *IZA Discussion Paper*, No. 2044.
- Lskavyan, V. and M. Spatareanu (2008), 'Host country's governance and the size of foreign investors', *Economics Letters*, forthcoming.
- Luengnaruemitchai, P. and S. Schadler (2007), 'Do economists' and financial markets' perspectives on the new Members of the EU differ?', *IMF Working Paper*, No. 07/65.
- Maliszewska, M. (2004), 'EU enlargement: benefits of the Single Market expansion for current and new member states', *CASE Network Studies and Analyses*, No. 273.
- Marin, D. (2006), 'A new international division of labor in Europe: outsourcing and offshoring to Eastern Europe', *Journal of the European Economic Association*, Vol. 4, pp. 612-622.
- Martin, P (2005), 'The geography of inequality in Europe', *Swedish Economic Policy Review*, No. 12, pp. 83-108.
- Matkowski, Z. and M. Prochniak (2007), 'Economic convergence between the CEE-8 and the European Union', *Eastern European Economics*, Vol. 45, No.1.
- McKinnon, R. (1963), 'Optimum currency areas', *American Economic Review*, Vol. 53, pp. 717-725
- Mercereau, B. (2006), 'Financial Integration in Asia: Estimating the Risk Sharing Gains for Australia and Other Nations', *IMF Working Paper*, No. 267.
- Ministry of Social Affairs and Employment of the Netherlands (2007), 'More than 100.000 people from Central and Eastern Europe employed in the Netherlands', *press release*, 27 November.
- Modén, K.-M., P.-J. Norbäck and L. Persson (2008), 'Efficiency and ownership structure: the case of Poland', *The World Economy*, Vol. 31, pp. 437-460.
- Moneta, F. and R. Ruffer (2006), 'Business cycle synchronisation in East Asia', *ECB Working Paper*, No. 671.
- Mourre, G. (2009), 'What explains the differences in income and labour utilisation and drives labour and economic growth in Europe? A GDP accounting perspective', *European Economy - Economic Papers*, No. 354, Economic and Financial Affairs DG, European Commission

- Mundell, R. (1961), 'A theory of optimum currency areas', *American Economic Review*, Vol. 53, pp. 657-665
- National Bank of Poland (2004), 'Report on the costs and benefits of Poland's adoption of the euro', March.
- National Reform Programmes (2008), *Renewed Lisbon Strategy for Growth and Jobs*.
- Obstfeld, M. (1998), 'The global capital market: benefactor or menace?', *Journal of Economic Perspectives*, 12(4): 9-30.
- OECD (2002), 'Ongoing changes in the business cycle', *OECD Economic Outlook*, June.
- OECD (2007), PISA 2006: *Science Competencies for Tomorrow's World Executive Summary*.
- OECD (2008), 'Agricultural Policies in OECD Countries: At a Glance 2008', Paris.
- Orenstein, A. (2008), 'Out-liberalizing the EU: Pension privatization in Central and Eastern Europe', *Journal of European Public Policy*, pp. 899-917.
- Pajares, M. (2007), 'Inmigración y mercado de trabajo. Informe 2007. Análisis de datos de España y Cataluña', *Documentos del Observatorio Permanente de Inmigración*, No. 14.
- Palazuelos-Martinez, M. (2007), 'The structure and evolution of trade in Central and Eastern Europe in the 1990s', *Europe-Asia Studies*, Vol. 59, No. 1, pp. 111-135.
- Pelegrín, A. and C. Bolancé (2008), 'Regional foreign direct investment in manufacturing. Do agglomeration economies matter?', *Regional Studies*, Vol. 42, pp. 505-522.
- Petroulas, P. (2007), 'The effect of the euro on foreign direct investment', *European Economic Review*, Vol. 51, pp. 1468-1491.
- Pollard, N., M. Latorre and D. Sriskandarajah (2008), 'Floodgates or turnstiles? Post enlargement migration flows to (and from) the UK', *Institute for Public Policy Research*.
- Popp, J. (2005), 'Agricultural markets in CEE – an overview', in S. Brosig and H. Hockmann (eds.): *How effective is the invisible hand? Agricultural and food markets in Central and Eastern Europe*, Studies on the agricultural and food sector in Central and Eastern Europe, Vol. 31, IAMO, Halle (Saale), pp. 3-21.
- Pouliquen, A. (2001), 'Competitiveness and farm incomes in the CEEC agri-food sectors - implications before and after accession for EU markets and policies', Study commissioned by the European Commission, Agriculture and Rural Development DG.
- Prettner, K. and A. Stiglbauer (2007), 'Auswirkungen der vollständige Öffnung des österreichischen Arbeitsmarktes gegenüber den EU-8-Staaten', *Geldpolitik & Wirtschaft*, No. 4.
- Pusterla, F. and L. Resmini (2007), 'Where do foreign firms locate in transition countries? An empirical investigation', *The Annals of Regional Science*, Vol. 41, pp. 835-856.
- Quintini et al. (2007), 'The changing nature of the school-to-work transition process in OECD countries', *IZA Discussion Paper*, No. 2582.
- Rapacki, R. and M. Próchniak (2009), 'The EU Enlargement and Economic Growth In the CEE New Member Countries', *European Economy – Economic Papers*, Economic and Financial Affairs DG, European Commission, forthcoming.
- Read, R. and S. Bradley (2001), 'The economics of eastern enlargement of the EU', *Industrial Relations Journal*, Vol. 32, No. 5, pp. 380-400.
- Retail Forward (1998), *European Retailing 2010*.
- Robert-Nicoud, F. (2007), 'Offshoring of routine tasks and (de)industrialisation: threat or opportunity – and for whom?', *Journal of Urban Economics*, Vol. 63, pp. 517-535.
- Rodrik, D. (2000), 'Institutions for high-quality growth: what they are and how to acquire them', *NBER Working Paper*, No. 7540.

- Roeger, W., J. Varga and J. in 't Veld (2008), 'Structural reforms in the EU: a simulation-based analysis using the QUEST model with endogenous growth', *European Economy - Economic Papers*, No. 351, Economic and Financial Affairs DG, European Commission.
- Roitinger, A. (2002), 'Book Review: Messerlin, P.A., Measuring the costs of protection in Europe - European commercial policy in the 2000s', *Aussenwirtschaft*, Vol. 57, No. 2, pp. 255-258.
- Rojec, M. and J. P. Damijan (2008), 'Relocation via foreign direct investment from old to new EU member states: scale and structural dimension of the process', *Structural Change and Economic Dynamics*, Vol. 19, pp. 53-65.
- Roland, G. (2005), 'After enlargement: institutional achievements and prospects in the new Member States', ch. 3 in C. Detken, V. Gaspar and G. Noblet (eds.): *The New EU Member States Convergence and Stability*, Third ECB Central Banking Conference, 21-22 October 2004, European Central Bank, April.
- Rosolia, A. and R. Torrini (2007), 'The generation gap: Relative earnings of young and old workers in Italy', *Temi di Discussione*, No. 639, Banca d'Italia.
- Ruffin, R. (1974), 'Comparative advantages under uncertainty', *Journal of International Economics*, Vol. 4, pp. 261-273.
- Rybinski, K. (2007), 'The role of the euro for the future of Poland', *Speech on 15 June 2007*.
- Rzońca, A., and P. Cizkowicz (2005), 'Non-Keynesian effects of fiscal contraction in new member states', *ECB Working Paper*, No. 519.
- Sala-i-Martin X. (1996), 'Regional cohesion: evidence and theories of regional growth and convergence', *European Economic Review*, Vol. 40, pp. 1325-1352.
- Sapir, A. (ed.) (2007), *Fragmented power: Europe and the global economy*, Brussels: Bruegel.
- Sapir, A. et al. (2004), *An agenda for a growing Europe*.
- Schadler, S., et al. (2006), 'Growth in the Central and Eastern European Countries of the European Union', *IMF Occasional Paper*, No. 252.
- Schadler, S. et al. (2005), 'Adopting the euro in Central Europe: challenges of the next step in European integration', *IMF Occasional Paper*, No. 234.
- Scott, A. J. (2006), 'The changing global geography of low-technology, labor-intensive industry: clothing, footwear, and furniture', *World Development*, Vol. 34, pp. 1517-1536.
- Shin, K. and Y. Wang (2003), 'Trade integration and business cycle synchronization in East Asia', *Asian Economic Papers*, MIT Press, Vol. 2, No. 3, pp. 1-20.
- Smarzynska Javorcik, B. (2008), 'Can survey evidence shed light on spillovers from foreign direct investment?', *World Bank Research Observer*, Vol. 23, pp. 139-159.
- Smarzynska Javorcik, B. and M. Spatareanu (2008), 'To share or not to share: does local participation matter for spillovers from foreign direct investment?', *Journal of Development Economics*, Vol. 85, pp. 194-217.
- Smeets, R. (2008), 'Collecting the pieces of the FDI knowledge spillovers puzzle', *World Bank Research Observer*, Vol. 23, pp. 107-138..
- Social Protection Committee (2008), 'Privately managed funded pension provision and their contribution to adequate and sustainable pensions', April, Brussels.
- Sölvell, Ö., C. Ketels and G. Lindqvist (2008), 'Industrial specialization and regional clusters in the ten new EU member states', *Competitiveness Review*, Vol. 18, pp. 104-130.
- Stančík, J. (2009), 'FDI Spillovers in the Czech Republic: Takeovers vs. Greenfields', *European Economy - Economic Papers*, Economic and Financial Affairs DG, European Commission, forthcoming.
- Steinlein, S. and K. Vlagsma (2005), 'Baltic convergence: steep and yet stable?', *Country*

- Focus, Vol. 2, No.15, Economic and Financial Affairs DG, European Commission.
- Svejnár, J. (2002), 'Transition economies: performance and challenges,' *Journal of Economic Perspectives*, American Economic Association, Vol. 16, No. 1, pp. 3-28, Winter.
- Szekely, I. and M. Watson (2007), 'Growth and economic policy: Are there speed limits to real convergence?', *European Economy - Economic Papers*, No. 294, Economic and Financial Affairs DG, European Commission.
- Szőrfi, B. (2007), 'Development and Regional Disparities – Testing the Williamson Curve Hypothesis in the European Union', *Focus on European Economic Integration*, No. 02/07, pp. 100-121.
- Tanzi, V. and N. Chalk (2002), 'Impact of large public debt on growth in the EU: A discussion of potential channels', in Buti, M., J. von Hagen and C. Martinez-Mongay (eds.): *The behaviour of fiscal authorities, growth and institutions*, pp. 1876-211.
- Thuermer, K. E. (2006), 'Offshoring and outsourcing: market trends – cost is not king', *fDi Magazine*, 5 December.
- Tornell, A. and Westermann, F. (2002), 'Boom-bust cycles in middle income countries: facts and explanations', *CESIFO Working paper*, No. 755, pp. 6.
- Traistaru, J. (2004), 'Transmission channels of business cycles synchronization in an enlarged EMU', *Working Paper*, Center for European Integration Studies, No. B18, ZEI Bonn.
- Transparency International (2008), *Transparency International corruption perception index*.
- Truman, E. (2006), 'Rearranging IMF chairs and shares: The sine qua non of IMF reform', in E. M. Truman (ed.): *Reforming the IMF for the 21st century*, Washington DC: Institute for International Economics, pp. 279–92.
- UK Home Office (2004), *Accession Monitoring Report May 2004*.
- UK Home Office (2008), *Accession Monitoring Report May 2004*.
- Van den Berg, H. (2006), *International trade and economic growth*, M.E. Sharpe, Armonk, New York, London.
- Van den Noord, P. et al. (2008), 'The evolution of economic governance in EMU', *European Economy - Economic Papers*, No. 328, Economic and Financial Affairs DG, European Commission.
- Van Wincoop, E. (1994), 'Welfare gains from international risksharing', *Journal of Monetary Economics*, 34: 175-200.
- Vu, T. B. and I. Noy (2008), 'Sectoral analysis of foreign direct investment and growth in the developed countries', *Journal of International Financial Markets, Institutions and Money*, forthcoming.
- Wacziarg, R. and Horn Welch K. (2008), 'Trade liberalization and growth: new evidence', *The World Bank Economic Review*, Vol. 22, No. 2, pp. 187-231.
- Wagner, H. (2005), 'Pension reforms in the new EU Member States – Will a three-pillar pension system work?', *Eastern European Economics*, Vol. 43, No. 4, pp. 27-51.
- Williamson, J. G. (1965), 'Regional inequality and the process of national development: a description of the patterns', *Economic and Cultural Change*, Vol. 13, p. 1–84.
- Williamson, J. G. (2005), 'Curbing the boom-bust cycle: stabilizing capital flows to emerging markets', *Policy Analyses in International Economics*, No. 75, Institute for International Economics, Washington.
- Winters, A. L. (2004), 'Trade liberalisation and economic performance: an overview', *The Economic Journal*, No. 114.
- World Bank (2009), *World Bank Doing Business Reports*.
- World Trade Organisation (2007), *World Trade Statistics*, Geneva.

Yang, B. (2008), 'FDI and growth: a varying relationship across regions and over time', *Applied Economics Letters*, Vol. 15, pp. 105-108.

Yilmaz, B. (2002), 'Turkey's competitiveness in the EU', *Russian and East European Finance and Trade*, Vol. 38, pp. 54-73.

Ylaeoutinen, S. (2004), 'Fiscal frameworks in the central and eastern European countries', *Ministry of Finance of Finland Discussion Paper*, No. 72.

Zoli, E. (2007), 'Financial development in emerging Europe: the unfinished agenda', *IMF Working Paper*, No. 07/245.