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COMMISSION STAFF WORKING DOCUMENT

Accompanying the document

Report from the Commission to the European Parliament and the Council

on the common provisioning fund in 2021

{COM(2022) 213 final}

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1. INTRODUCTION

This staff working document (SWD) accompanies the first annual report on the common provisioning fund (CPF) for 2021. It contains detailed information on the evolution of the CPF portfolio, presents the financial statements of the fund, and provides an in-depth analysis of the investment outlook. In addition, it gives additional explanations on the analysis performed on asset class diversification, which supports the extension of CPF investment to include up to 20% exposure to equity.

2. EVOLUTION OF THE CPF PORTFOLIO IN 2021

CPF is the largest of the Commission managed portfolios with an asset value of EUR 12.31 billion at year-end. The CPF comprises several compartments, corresponding to the provisions for one or several budgetary guarantees established by different EU legislative instruments. The currently active compartments include EFSI, InvestEU, EFSD and GFEA (supporting legacy MFA/ELM and Euratom operations under previous MFFs). Further compartments will become active when budgetary provisions are made available for EFSD+ and new MFA loans under the current MFF.

CPF became operational on 1 January 2021 with the transfer of the **EFSI** Guarantee Fund portfolio worth EUR 8.03 billion at the time. This constituted the total value of the CPF at the outset. The **InvestEU** compartment was activated on 30 June 2021 with a contribution of EUR 0.30 billion. On 1 August 2021, the existing portfolios **EFSD** and **GFEA** were transferred to CPF with a net asset value (NAV) as of 31 July 2021 of EUR 0.80 billion and EUR 2.79 billion respectively. At year-end, EFSI remains the largest CPF compartment.

3. FINANCIAL STATEMENTS

3.1. Assets of the CPF

The net assets of the CPF stood at EUR 12.31 billion as at 31 December 2021. The main assets were bond securities, classified as fair value through surplus or deficit (EUR 11.27 billion) and cash and cash equivalents (EUR 1.03 billion). Including cash and cash equivalents, current assets stood at EUR 3.14 billion. This relatively high share of current assets is necessary to guarantee CPF operational capacity and necessary liquidity.

3.2. Balance sheet[1]

ASSETS

	31 December 2021
	EUR
NON-CURRENT ASSETS	**9 165 352 836**
Financial assets at fair value through surplus or deficit	
Securities	9 165 352 836
Derivatives	**-**
CURRENT ASSETS	**3 141 276 916**
Financial assets at fair value through surplus or deficit	
Securities	2 106 297 201
Derivatives	1 812 602
Receivables	**363 467**
Cash and cash equivalents	**1 032 803 646**
Current accounts	*1 008 293 189*
Cash equivalents	*24 958 876*
Accrued interest on cash and cash equivalents	*(448 419)*
TOTAL ASSETS	**12 306 629 752**

NET ASSETS AND LIABILITIES

	31 December 2021
	EUR
NET ASSETS	**12 306 420 400**
Contribution from EU Budget	12 439 736 157

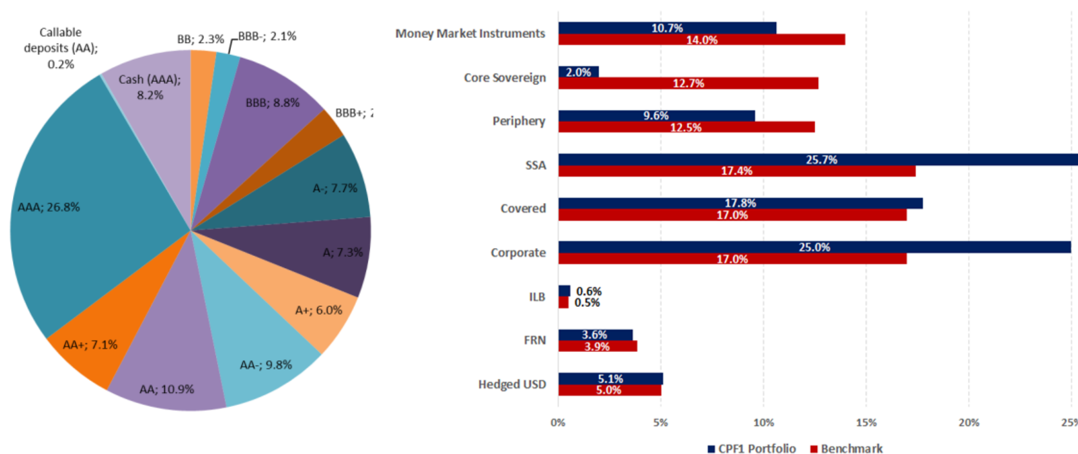
[1] Since this is the first year of CPF operation only 2021 accounts are available. In the next annual report the balance sheet will include results both for the current year and the previous year to allow for comparison. All amounts are in EUR.

Retained earnings	-
Economic result of the year	(133 315 757)
CURRENT LIABILITIES	**209 352**
Financial liabilities at fair value through surplus or deficit	
Derivatives	-
Other payables	**209 352**
TOTAL NET ASSETS AND LIABILITIES	**12 306 629 752**

3.3. Asset structure and value of compartments

As presented in the CPF annual report, top (AAA) rated securities correspond to 26.8% of total assets. Cash and cash equivalents represent 8.4% of the total portfolio value. The average credit quality of CPF at the end of 2021 was A-, while the average one year default probability was 0.07%. The sensitivity of the portfolio to interest rate changes was close to that of the benchmark; in particular, the so-called modified duration[2] of the portfolio was 3.1, while the duration of the benchmark stood at 3.39 at the end of December 2021.

Figure 1 – Portfolio by rating (left) and portfolio vs benchmark split by asset class (right) – December 2021



As mentioned in the introduction, at the end of 2021 the CPF consisted of four compartments. Each compartment holds a number of CPF units or shares in the CPF of a standard size. Changes in the market valuation of the CPF are reflected in the price of the units referred to the Net Asset Valuation, reflecting the market valuation of the assets belonging to each compartment at the end of each month.

The movements and values are presented on the in the tables and graphs below. Net Asset Values (NAV) are in EUR.

[2] In simplified terms, a modified duration of 3 means that if interest rates across the maturity spectrum rise (drop) by 0.10%, the portfolio value drops (rises) by three times that, namely by 0.30%.

Compartment as of 31.12.2021	Contributions less redemptions 2021 in EUR	Number of units	Market Value in EUR
EFSD	798 238 694	80 021	790 679.804
EFSI	8 627 829 240	863 192	8 529 094.806
GFEA	2 712 886 761	271 926	2 686 870.535
INVESTEU	300 781 462	30 339	299 775.255
Total CPF	**12 439 736 157**	**1 245 478**	**12 306 420 400**

Annual performance NAV per unit	
01.01.2021	10 000.00000 €
31.12.2021	9 880.88028 €
since 1.1.21:	-1.191%

3.4. Financial performance

The first year of CPF operation coincided with an exceptionally challenging market environment for fixed income investment, impacting negatively the valuation of the fund's securities. The CPF ended the year with an economic result of EUR -133.3 million.

This result needs to be viewed in the context of very difficult investment conditions in international bond markets. The year 2021 was the worst year for bond markets since 1999 with global bond market indices declining by 4.7% and euro-denominated bond market indices declined by 2.85%[3]. This outcome was driven by higher inflation prompting market expectations of tightening of monetary policy by central banks. Consequently, the CPF return was also negatively impacted, although remaining in line with its benchmark and significantly out-performing the broader bond market evolution.

Nonetheless, the main driver for the 2021 result was by far the loss from the change in fair value of securities and interests on securities (EUR -122.9 million) which was reduced by EUR 40.5 million from net currency gains from holding USD-denominated assets to a net loss on securities of EUR 82.4 million. EUR 45.5 million losses (EUR -37.2 million from forwards and EUR -8.3 from cash) were related to hedging the currency risk of USD-denominated securities and are largely offset by currency and other gains from holding USD-denominated assets included in the security result above.

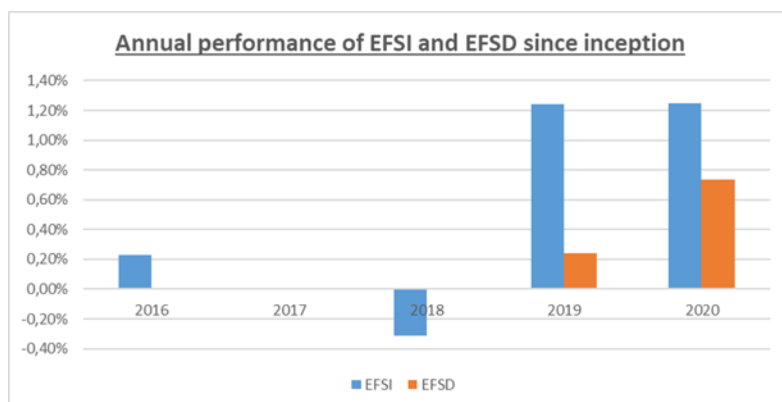
[3] The Barclays Global Aggregate Bond Index, a broad benchmark representing USD 68 trillion worth of sovereign and corporate investment grade (IG) debt denominated in various currencies, lost 4.7% in 2021. The Bloomberg Euro-Aggregate, a EUR 13.4 trillion broad benchmark of euro denominated Investment Grade debt posted a record loss of 2.85% in 2021.

3.5. Statement of financial performance[4]

	2021
	EUR
Revenue from operating activities	**3 377 874**
Foreign exchange gains	3 377 874
Other revenue from operating activities	-
Expenses from operating activities	**(11 695 279)**
Foreign exchange losses	(11 678 279)
Other expenses from operating activities	(17 000)
Audit fees	*(17 000)*
RESULT FROM OPERATING ACTIVITIES	**(8 317 405)**
Financial revenue	**882 260**
Interest revenue on:	2 306
Cash and cash equivalents	*2 306*
Other interest revenue	-
Other financial income - fair value changes of securities	-
Other financial income - fair value changes of derivatives	-
Security lending income	879 954
Financial expenses	**(125 880 612)**
Interest expenses on cash and cash equivalents	(4 563 034)
Other financial expenses - fair value changes of securities	(82 370 766)
Other financial expenses - fair value changes of derivatives	(37 204 835)
Custody fees and other financial expenses	(1 741 977)
FINANCIAL RESULT	**(124 998 352)**
ECONOMIC RESULT OF THE YEAR	**(133 315 757)**

The negative return of the CPF portfolio in 2021 must also be analysed in the light of the performance of legacy portfolios over the last years. The chart below illustrates the performance of EFSI and EFSD since the inception of the funds.

[4] Since this is the first year of CPF operation only 2021 accounts are available. In the next annual report the balance sheet will include results both for the current year and the previous year to allow for comparison. All amounts are in EUR.



Returns in 2019 and 2020 were largely driven by positive curve returns, as the yields were pushed to historical lows by health-related concerns and accommodative actions from central banks. The negative curve returns in 2021 have partially offset the positive performance of 2019 and 2020.

4. FORWARD LOOKING DIVERSIFICATION

4.1. Introduction

This section presents the results of the in-depth assessment of the risk-return impact of possible CPF asset class diversification carried out by the Commission services since summer 2021.

The outlook for returns of fixed income portfolios remains challenging, possibly for several years. While a necessary element of the response to the pandemic, prolonged central bank support over recent years has boosted bond prices to very high levels and, mechanically, compressed expected returns going forward. As developed market economies continue to recover from the pandemic, central banks have signalled that they will gradually tighten their monetary policies, especially as inflation concerns have recently intensified. According to the European Commission's latest European Economic Forecast, published in February 2022, inflation in the EU will increase from 2.9% in 2021 to 3.9% in 2022 before receding thereafter. This relatively sharp reversal in the interest rate cycle creates the conditions for important valuation losses in investment grade fixed income portfolios like CPF.

To avoid situations in the future where CPF performance is exclusively dependent on a single asset class, the Commission services have assessed the implications of expanding the investment universe to include some exposure to equity or other asset classes. Following extensive analysis and quantitative simulations, it was concluded that the risk/return profile of portfolios might benefit, over the longer term, from an allocation to equities of up to 20% of the portfolio. The expansion of the CPF investment policy to include exposure to equity is allowed under Article 8(1) of) the CPF Asset Management Guidelines[5] which allow the CPF to invest in 'regulated collective investment vehicles investing in [debt] and equity'. These investments shall take the form of 'collective investment undertakings covered by Directive 2009/65/EC (UCITS)[6]

[5] Commission Decision of 25.3.2020 on the Asset Management Guidelines of the common provisioning fund (C(2020) 1896 final, OJ C 131, 22.4.2020, p. 3–11.

[6] Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS) (recast) (OJ L 302, 17.11.2009, p. 32).

including exchange-traded funds which invest in equity [or in debt instruments] where maximum losses cannot exceed amounts invested'. The remaining part of this staff working document presents the analytical work that supports this conclusion.

4.2. Methodology

The review was based on three strands:

(1) review of relevant literature from academics and practitioners focusing on the characteristics of various asset classes, notably equities, and their interactions in a portfolio context;
(2) CPF portfolio optimization simulations and assessment of risk tolerance;
(3) examination of the target allocations of similar investors.

4.3. Literature review

This review examined various asset classes such as equities, high-yield bonds (non-investment grade) and commodities such as gold. In combination with the other strands of this review, the literature review concludes that equities is the most promising starting point for diversification.

The attractiveness of asset classes should not be assessed only individually, but mainly in a portfolio context, where the interaction between the returns of various asset classes (return correlations) comes into play. Lower correlation increases diversification and thus risk-adjusted returns. Correlations are not stable and one can identify regimes of higher and lower correlations across time. Yearly correlations are mainly driven by monetary policy and economic policy uncertainty. In particular, the behaviour of inflation seems to be an important driver of changes in correlations.

Overall, however, government and corporate bond returns correlate more between them than with those of equities. This suggests that adding equities to a bond portfolio can materially enhance diversification. Research on the real returns of equities since the 1960s shows that equities performed well during periods of economic expansions, while their returns suffered during recessions. On the other hand, bonds had a positive return during recessions, but underperformed equities when the economy was doing well. Consequently, the inclusion of a limited percentage of stocks to a bond portfolio, historically, increases the portfolio's long-term expected returns, while also remaining relatively resilient during market stress periods.

4.4. Risk and return of a diversified stock and bonds portfolio

In order to assess the desirability of adding equity exposure to the CPF, the Commission services evaluated what the market offered in terms of combinations of risk and return. This required a look at expected returns (ER) and risks, not only at asset class, but also at portfolio level, where interactions (correlations) between the performance of asset classes is a key factor.

The analysis was focused on so-called 'tail risk' measures, aiming to capture low probability but high loss scenarios. The metric used was the annual Conditional Value at Risk (CVaR), a measure of the average loss that would be experienced in the case of a tail risk scenario. The confidence level used was 95%, implying a one in twenty years frequency of occurrence of such a tail risk scenario.

Analyses showed that expanding the investment universe can deliver better expected return per unit of risk, or lower risk for a given ER. In particular, the analyses showed that the higher the weight of additional asset classes (notably equities), the larger the probability of achieving better

returns. However, the allocation of part of the CPF portfolio to equity will also increase the riskiness of the portfolio. Furthermore, while the efficiency rate (expected return per unit of risk or ER/CVaR ratio) is rising initially, it peaks around an allocation of 20% to equities and starts decreasing thereafter.

Indicatively, a portfolio composed only of fixed income investments could offer an expected return of 0.7% per year, while the annual CVaR would be around 4.4%. When the proportion of other asset classes rises, in this case equity, to 20%, the expected return more than doubles to 1.6% per year. CVaR also increases to 6%, but this increase, is more modest (from 4.4% to 6%).

Beyond a 20% allocation, the additional expected return per unit of risk starts decreasing. While the exact numbers can differ to some extent, the overall conclusion on the range of optimal allocation was robust across different assumptions.

These expected returns should be achieved on average over the course of the longer-term strategic investment horizon. Therefore, they should not be expected in each and every year, as outcomes will depend on market conditions in the underlying bond and equity markets, which remain subject to uncertainty and volatility[7].

As seen earlier, the allocation of a part of the CPF portfolio to equity will also increase the riskiness of the portfolio compared to a solely fixed income portfolio. However, given the low probabilities attached to such an outcome, and the offsetting increased average expected returns over the longer-run, the analysis carried out by the Commission services concludes that adding this exposure to equity enhances the overall expected risk-return performance of the fund.

While this diversification plan entails potentially higher variations in the value of assets held in CPF, the 20% limit has been calibrated to preserve, with a high confidence level, the fund's core function of ensuring any guarantee calls in full and in time. The analysis in the following section aimed at ensuring that even worst-case/tail-risk scenarios would not jeopardise the ability of the CPF to honour guarantee calls.

4.5. Risk tolerance and investment horizon

Risk tolerance can be defined as a composite of an investor's ability and willingness to accept risk. Whereas the risk ability is set by the investment objectives of a portfolio, the risk willingness relates to the amount of short- or medium-term losses one is ready to accept in the anticipation of reaching longer-term objectives. Risk tolerance is most often quantified through Value-at-Risk (VaR) metrics.

The objective for the CPF portfolio is to ensure capital preservation over the investment horizon, which under very stringent assumptions is currently estimated at around 9 years. Consequently, when deciding on the optimal asset allocation, one should strive to select a portfolio that maximises the probability of obtaining non-negative return over the next 9 years.

With a portfolio holding a maximum of 20% equity, it has been estimated that a severe market turmoil would lead to portfolio losses in the region of 6% (as measured by a tail risk measure such as Conditional Value at Risk, CVaR), leaving a still sufficient 94% of the value in place. This is projected worst case scenario that should not occur more often than once per every twenty years.

Considering the positive net cash-flow profile of the CPF up to 2030 and the total size of the CPF, the addition of equities into the portfolio would also not put at risk the capacity of the CPF

[7] Expected returns are central estimates of probability distributions of returns, where actual results can turn out to be better or worse.

to pay for the guarantee calls on the liability side. On the contrary, the higher expected return across the investment horizon should enhance the value of the portfolio over the long term and increase the probability of reaching the capital preservation over the investment horizon.

To summarize, the analysis of the risk tolerance and the undertaken combined asset and liability stress tests, have indicated that even worst-case/tail-risk scenarios would not jeopardise the ability of the CPF to honour guarantee calls.

4.6. Target allocations of similar investors

Many other types of conservative investors, such as pension, endowment or sovereign wealth funds invest in equities. Some central banks of developed economies, which traditionally have only invested in fixed income, have also diversified their reserves to include equity exposure. A 2021 survey from the World Bank on the asset management practices of central banks reported a 9.5% median allocation to equities among the central banks that have introduced equities as an eligible asset class. Generally, central banks do not select individual equities, but invest in a very broad equity universe (e.g. via equity Exchange Traded Funds - ETFs).

The analysis undertaken by the Commission services showed that the operations guaranteed by CPF have more similarities with non-life insurers (e.g. Property and Casualty), given that they also face uncertain (in time and size) outflows similar to the guarantee calls on the CPF from policies such as the InvestEU or the external lending mandate and EFSD+. Equity exposure typically range around 20% of European non-life insurers' investments.

4.7. Diversification plan

Exposure to equity would be reached exclusively through investments in ETFs, which can offer exposure to broad baskets of stocks, across companies, sectors and geographical regions. The Asset Management Guidelines of the CPF already allow the investment into equity through regulated collective investments including ETFs. This diversification strategy could potentially be expanded to other portfolios managed by the Commission with similar investment horizons and objectives.

At the current juncture, inflation risks have risen while major central banks, including the ECB, have signalled that, based on their current projections, they will be on a path of tightening monetary policy, thus gradually withdrawing unprecedented levels of liquidity. Decreasing liquidity and rising inflation have led to downward pressure on the prices of assets like bonds and equities and possibly to an increase of the correlation of their returns for some time. Therefore, the build-up of equity exposure would be progressive, taking into account market conditions and valuation levels, possibly through the investment of new inflows to the CPF.

5. CONCLUSION

In first year of operations CPF has faced many challenges, which have put downward pressure on its performance. CPF operated at a EUR 133 million loss in 2021, which was nonetheless in line with its benchmark and a significant outperformance on wider bond market performance. Extensive qualitative and quantitative analysis showed that adding equity exposure of up to 20% of the portfolio would be beneficial in terms of expected risk-adjusted returns. While risk would increase to some extent, it would remain consistent with the risk tolerance of the CPF. The increased risk of higher losses every 20 years would be more than offset by the increase of expected returns.

On this basis, the Commission will seek to finalise all preparations for investment in equity ETFs by autumn 2022, which requires the completion of a number of accounting, technical and operational processes. Investment in equity ETFs will be progressively built-up, taking into account market conditions and valuation levels – possibly through the investment of new inflows to the CPF.