

**INFORMAL
SESSION TO
ENGAGE**

FO/DIS/21/75

CONFIDENTIAL

May 19, 2021

To: Members of the Executive Board

From: The Secretary

Subject: **Review of the Investment Account and Trust Assets Investment Strategy—
Initial Considerations**

Board Action: **Informal session to engage** Executive Directors

Tentative Board Date: **Thursday, June 17, 2021**

Issues for Discussion: Page 36

Publication: Not proposed due to market sensitivity of content

Questions: Mr. Brennan, FIN (ext. 34653)
Ms. Rustaman, FIN (ext. 35481)



May 17, 2021

REVIEW OF THE INVESTMENT ACCOUNT AND TRUST ASSETS INVESTMENT STRATEGY—INITIAL CONSIDERATIONS

EXECUTIVE SUMMARY

This paper provides background for an initial discussion on the investment strategies for the Investment Account (IA) and Trust Assets (TA). The review of the IA is being brought forward in light of the increasingly challenging outlook for investment returns, and to align the five-yearly review cycles for the IA and TA. The review will cover the entire IA, both the Endowment Subaccount (EA) and the Fixed-Income Subaccount (FI), as well as the TA, which is comprised mainly of Poverty Reduction and Growth Trust (PRGT) assets. The review will also include the conflict of interest policy as well as a proposal for formalizing a commitment to responsible investing, which is discussed more fully in the supplement paper.

The EA, FI, and PRGT have all achieved their respective investment objectives since the inception of their expanded strategies. Investment returns for all the portfolios benefitted from strong market performance as developed market bond yields declined to historic lows and risk assets recovered sharply from their sell-off on the outbreak of the COVID-19 pandemic. As a result, the EA's performance continued to exceed expectations and surpassed its 3 percent real return target in U.S. dollar (USD) terms. The expanded FI strategy also performed well, with annual returns of the FI exceeding the SDR interest rate by a very robust margin of 44 basis points (bp). The PRGT has also experienced strong performance during the transition to its new investment strategy, which was fully phased-in by December 2020.

The review will aim to ensure that the investment strategies for the IA and TA maintain an appropriate balance of risk and income generating potential. The returns for all the portfolios are likely to be considerably lower going forward as the decline in risk free rates has lowered expected investment returns across all asset classes. Lower bond yields will result in lower returns for fixed-income assets over the medium term and elevated valuations are a headwind for some equity markets. In addition, heightened inflation uncertainty presents another challenge.

While staff believes that there is some scope in the EA to increase risk to improve prospective returns, a reduction in the return target may still be warranted. With the deterioration in the return outlook, achieving the current return target is likely to require a significant appetite for risk which would extend beyond the gradual evolution envisaged for the EA strategy when it was established. Some refinements to the asset

allocation can improve prospective returns and maintain portfolio resilience, but these refinements should be considered in conjunction with a lower return target to maintain a balanced strategy.

By comparison, there is limited scope to increase risk in the FI given its reserve role. The current FI strategy is still expected to achieve a positive margin above the SDR interest rate. However, a lower margin is likely going forward given the low yield environment and the proximity at the current time of the SDR interest rate floor. Based on experience with the recently expanded strategy, some refinements could be considered to deliver a small improvement in investment return without materially changing the FI's risk profile.

Major changes to PRGT's investment strategy are not recommended at this stage, pending the outcome of the broader review of the PRGT's financial framework.

The current strategy remains well positioned to achieve the return target, while the decline in PRGT's reserve coverage limits the current capacity to modify the strategy to pursue a higher return target. A further reassessment of the investment objectives and strategy can be undertaken if warranted by forthcoming decisions from the ongoing *Review of Concessional Financing and Policies*.

Approved By
Bernard Lauwers

Prepared by the Finance Department’s Investment Unit in consultation with the Legal Department. The Investment Oversight Committee (IOC) has reviewed this report.

CONTENTS

Glossary	5
INTRODUCTION	6
ENDOWMENT SUBACCOUNT	7
A. Background, Performance, and Recent Developments	7
B. Strategic Considerations	10
C. The Role of Active Management in the EA	16
FIXED-INCOME SUBACCOUNT	20
A. Background, Performance, and Recent Developments	20
B. Strategic Considerations	23
TRUST ASSETS	29
A. Background, Performance, and Recent Developments	29
B. Strategic Considerations	31
RESPONSIBLE INVESTING	33
CONFLICT OF INTEREST UPDATE	34
ISSUES FOR DISCUSSION	36
BOXES	
1. Real Estate and Infrastructure	13
2. Value of Active Management in EM Equity Markets	19
3. Addressing the Risk of Sustained Negative Interest Rates on the FI	28
FIGURES	
1. IA and TA Investment Portfolios	6
2. EA SAA and Past Strategy Refinements	8
3. EA Investment Returns	8
4. Efficient Frontier of Equities and Bonds—2012, 2018, and 2021 (USD)	9
5. Historical Real Yields and Equity Risk Premium	10
6. Projected EA SAA Returns Over 5-Year and 15-Year Horizons	11

REVIEW OF THE IA AND TA INVESTMENT STRATEGY—INITIAL CONSIDERATIONS

7. EA Strategy Relative to Comparators	12
8. Summary of Potential EA SAA Adjustments	15
9. Illustrative Alternative Portfolios for the EA	16
10. Performance of EA Active and Passive Components – Net of Fees	17
11. Potential Refinements for the EA	18
12. FI Strategy—Tranching and Eligible Assets	21
13. FI Performance Since Inception	22
14. FI Cumulative Performance	22
15. Historical SDR Yields	23
16. Projected FI Return Margin Over the SDR Interest Rate	24
17. FI Eligible Investments and Minimum Ratings Compared to Reserves Managers	25
18. EUR and USD Corporate Issuers by Credit Rating and Industry	27
19. Large-Cap BBB Non-Financial Corporate Bond Sector Breakdown	27
20. Illustrative Impact of FI Refinements	27
21. Potential Refinements for the FI	29
22. PRGT Target Asset Allocation and Phase-In	30
23. PRGT Performance Since Inception	31
24. Simulated Annualized Return and Risk of PRGT Strategy	33
25. Potential Refinements for the PRGT	33

ANNEX

I. Analysis of EA Alternative Portfolios	37
--	----

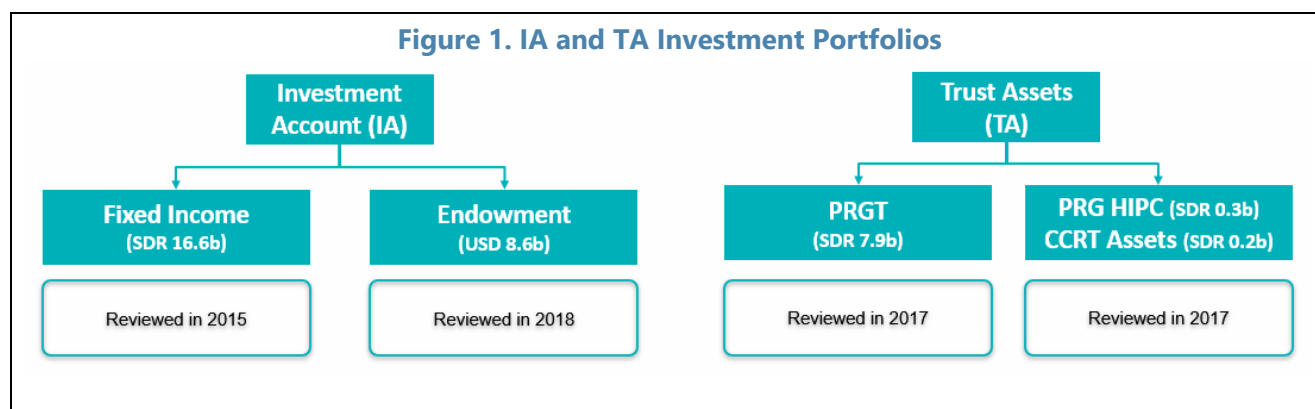
Glossary

bp	Basis points
CCR Trust	Catastrophe Containment and Relief Trust
CVaR	Conditional Value-at-Risk
DM	Developed Markets
EA	Investment Account Endowment Subaccount
EM	Emerging Markets
ESG	Environmental, Social, and Governance
FI	Investment Account Fixed-Income Subaccount
GED	Global External Deflator
GRA	General Resources Account
IA	Investment Account
IOC	Investment Oversight Committee
NIM	New Income Model
PRG-HIPC	Poverty Reduction and Growth Operations for the Heavily Indebted Poor Countries Trust
PRGT	Poverty Reduction and Growth Trust
REITs	Real Estate Investment Trusts
SAA	Strategic Asset Allocation
SDR	Special Drawing Rights
TA	Trust Assets
TIPS	Treasury Inflation-Protected Securities
VaR	Value-at-Risk

INTRODUCTION

1. This paper provides background for an initial discussion on the investment strategies for the IA and TA. The review of the IA is being brought forward by one year to facilitate a timely assessment in light of the increasingly challenging market outlook, and to align the five-yearly IA review cycle with that of the TA. The concurrent review will allow for a holistic and comprehensive assessment of the different investment objectives and strategies of the two IA subaccounts, the EA and the FI, as well as the PRGT, which represents the bulk of the TA. The review is expected to conclude by March 2022.

2. This will be the Board’s first opportunity to review experience with the FI and PRGT since major strategy changes were introduced in 2015 and 2017, respectively. The most recent IA investment strategy discussions in 2018 and 2019 focused on the passively managed component of the EA and the introduction of private infrastructure debt into its strategic asset allocation (SAA). At that time, there was insufficient experience with the new FI strategy and actively managed component of the EA to meaningfully assess their performance. This review will cover the entire IA (Figure 1). In addition, the experience with the PRGT’s new investment strategy will be reviewed now that its phased implementation is complete. As required by the *Rules and Regulations of the IA* (“Rules”) and the *Guidelines for Investing PRG, PRG-HIPC and CCR Trust Assets* (“Guidelines”), the conflict of interest policy will also be included in the review.



3. This paper is presented together with a supplement on *Responsible Investing for the Investment Account and Trust Assets*. Directors requested that staff develop a proposal for formalizing a commitment to responsible investing as part of this broader investment review. The supplement provides industry and peer information, background on how responsible investing practices are currently applied in the management of the IA and TA, and indications of how these practices might evolve over time under a formal framework.

4. The paper is organized as follows. The following three sections discuss the EA, FI, and TA in turn. Each of these sections provides an overview of performance and key developments since the last respective strategy reviews, followed by a discussion of high-level strategic issues for each portfolio. The report then summarizes a possible proposal for formalizing a commitment to responsible investing within the existing governance structures of the IA and TA, followed by a brief update on the conflict of interest framework. The final section summarizes issues for discussion. Based on the Executive Directors' feedback, staff will come back to the Board with specific proposals for the IA and TA.

ENDOWMENT SUBACCOUNT

This section covers the EA Subaccount.¹ The EA's purpose is to provide a meaningful income contribution to cover the Fund's administrative expenditures while preserving the long-term real value of the Subaccount's resources. Its investment objective is to achieve a long-term real return of 3 percent in USD terms and it is invested according to a conservative diversified strategy with an overall 60 percent allocation to fixed-income and 40 percent to equities. At least 90 percent of the EA follows a passive investment approach. The Rules provide the legal framework for the implementation of the investment authority for the overall IA, including both the EA and FI Subaccounts.

A. Background, Performance, and Recent Developments

5. The Board's last review of the EA in 2018 initiated a gradual evolution of its investment strategy. Although the EA had met the 3 percent real return target over the review period, Directors recognized the challenges in achieving the return objective over an extended time horizon. A number of gradual refinements to the EA's investment strategy were adopted with the aim of improving the portfolio's risk-return tradeoffs (Figure 2). One notable refinement was a proposal to introduce private infrastructure debt in EA, which was approved in 2019. During the 2018 review, Directors also agreed on a framework for guiding future payouts from the Endowment.

6. The EA strategy has continued to perform better than expected and returns have exceeded its long-term return target. Since its inception in 2014, the EA returned 5.82 percent on an annualized basis, which is 55 bp above its return target of 3 percent over the Fund's Global External Deflator (GED) (Figure 3). Overall, the EA has benefitted from the strong market performance over the period, including the decline in developed market bond yields to historic lows. Accommodative monetary and fiscal policies implemented following the COVID-19 market crash in March 2020 triggered an exceptionally strong recovery in equities and other risk assets. Although the equity allocation comprises 40 percent of the total portfolio, its strong returns contributed over 60 percent to the total return since inception. The strategy refinements implemented in 2018 also contributed a performance improvement of approximately 20 bp per annum in aggregate. The

¹ The EA was funded in 2013 with profits from limited gold sales in 2011 as part of IMF's new income model (NIM). The goal of the NIM was to diversify sources of income to make the Fund's finances more sustainable and less dependent on lending income over time. More background information is available at <https://www.elibrary.imf.org/view/IMF071/24764-9781484330876/24764-9781484330876/24764-9781484330876.xml>

realized volatility of the EA's return has increased to around 6 percent from 4.6 percent at the time of the last review, but it is still well below the original long-term expectation of 8-9 percent.

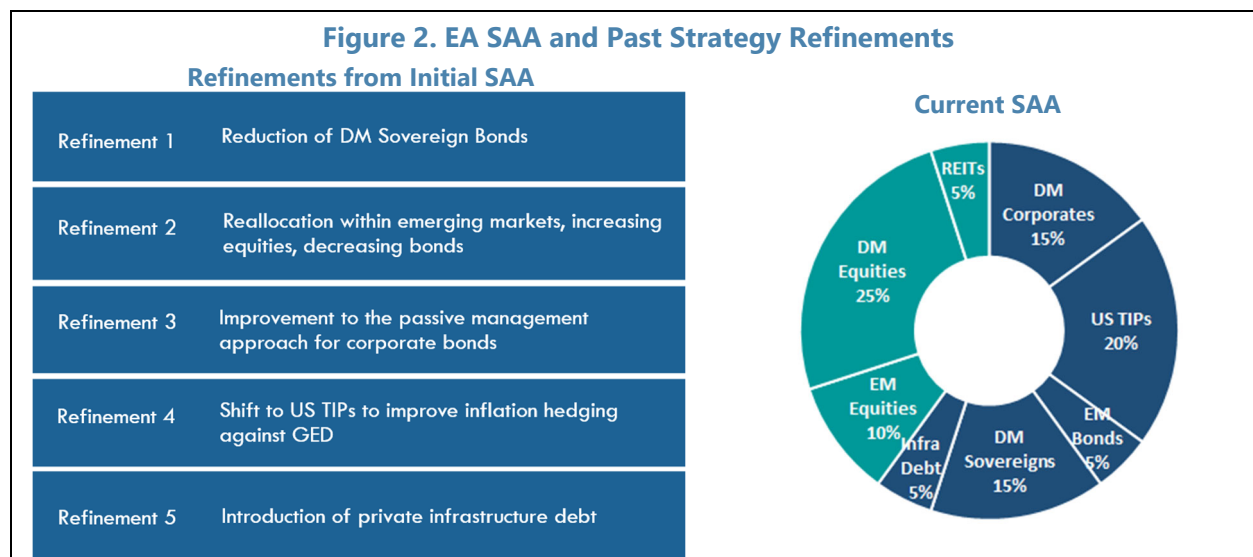


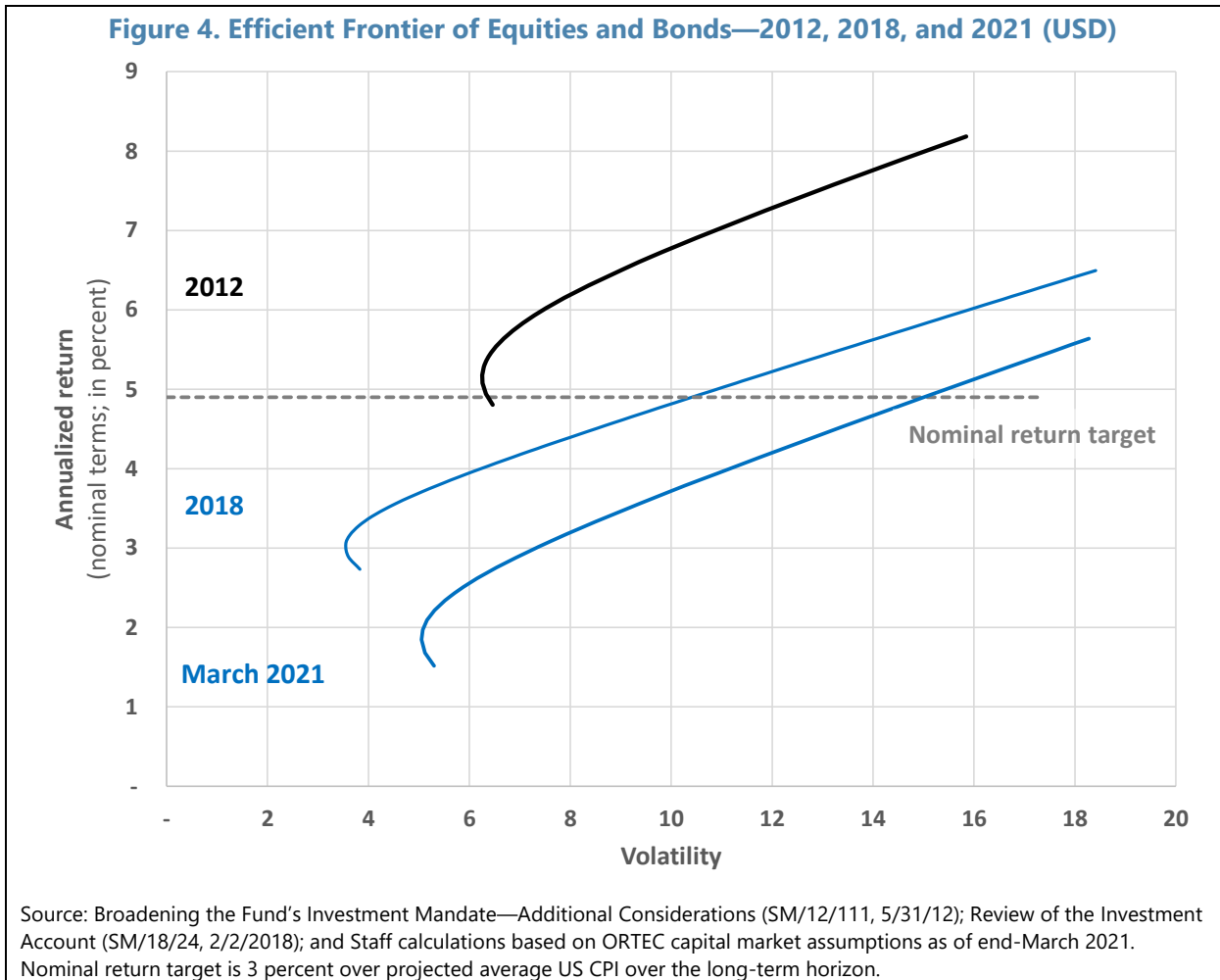
Figure 3. EA Investment Returns
(end-March 2021, in percent)

As of end-March 2021	FY2014 (March to April 2014)	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021 to date	Since Strategy Inception (Annualized)
Total Endowment	0.93	6.88	-1.27	7.72	5.42	4.72	0.61	17.01	5.82
EA objective: 3% + GED	0.53	5.00	4.90	4.90	5.90	5.30	5.60	4.94	5.27
EA - Passive Component	0.93	6.88	-1.27	7.77	5.44	4.66	0.52	16.98	5.82
Fixed Income	0.51	6.09	0.46	4.18	1.29	4.45	6.49	2.52	3.67
DM Sovereigns	0.13	6.76	1.74	2.28	-0.01	5.47	10.73	-3.52	3.26
DM Corporates	0.52	5.59	2.05	4.08	1.09	5.61	5.04	3.34	3.87
EM Bonds	1.47	0.50	-2.16	-0.70	5.86	1.58	2.90	5.71	2.12
US TIPs / Inflation-Linked Bonds	0.40	8.60	-0.83	8.70	0.44	3.70	5.69	5.54	4.53
Infrastructure Debt	--	--	--	--	--	--	--	--	0.18
Equity	1.70	8.40	-4.60	14.50	13.10	5.20	-8.30	41.32	9.17
DM Equities	0.83	7.81	-4.06	16.12	13.83	6.24	-4.83	41.73	10.16
EM Equities	4.12	8.27	-17.59	18.16	21.02	-5.62	-12.58	46.77	6.99
REITs	3.70	10.63	6.07	2.63	1.43	13.82	-17.71	27.92	6.11

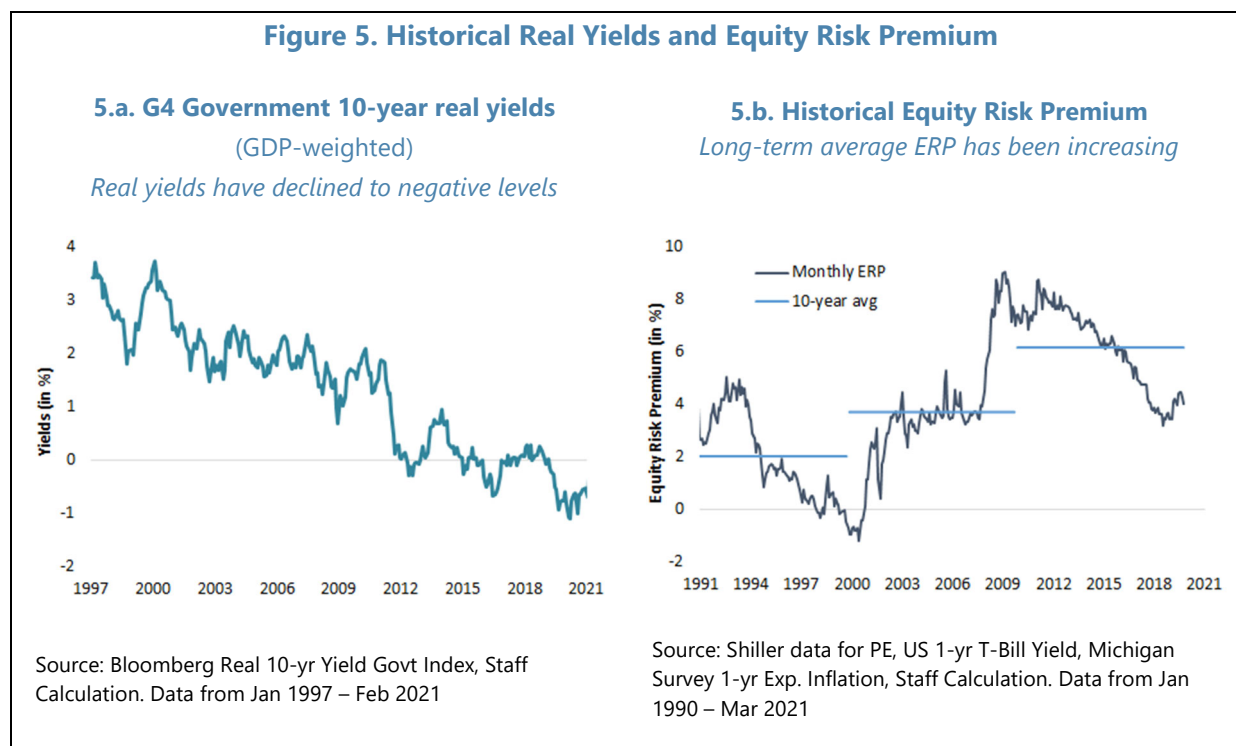
Source: State Street data net of fees. Data less than one year is not annualized.

7. Since the last review the long-run decline in risk free interest rates has lowered expected investment returns across all asset classes even further. Lower bond yields are inevitably going to result in diminished returns for fixed income, and elevated valuations are a headwind for some equity markets. The projected risk-to-return frontier for portfolios of equities and bonds has moved markedly lower over the ten years since the EA's original strategy was established (Figure 4). For example, to reach the nominal return target would have required a portfolio mix of equities and government bonds with an expected return volatility of roughly 6 percent in 2012, 10 percent in 2018, and now 15 percent as of March 2021. However, the frontier

has also steepened, indicating that the reward for incremental risk has increased. Some recent academic studies suggest a long-term increasing trend in the equity risk premium (ERP) over several decades as a result of demographic trends.² Aging households with a growing need for retirement income have directed more of their savings towards bonds, driving down real yields and reducing the relative demand for riskier assets. As a result, investment portfolios with a longer horizon and the capacity to invest in riskier assets are being relatively well compensated for accepting the additional risk (Figure 5).



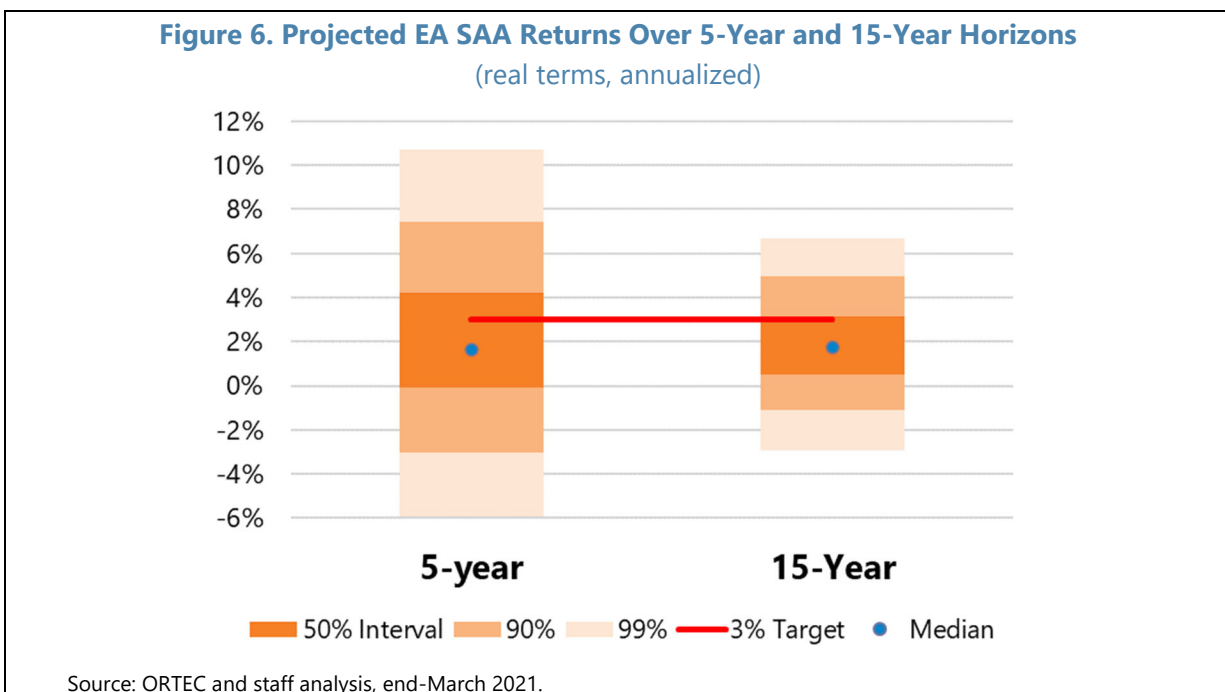
² Kopecky & Taylor, *The Murder-Suicide of the Rentier: Population Aging and the Risk Premium*, June 2020.

Figure 5. Historical Real Yields and Equity Risk Premium

8. While interest rates remain at historical lows, the outlook for inflation has become more uncertain. Financial market prices for inflation hedging instruments are now reflecting increased upside risk for U.S. inflation. Highly accommodative fiscal and monetary policies introduced to address the economic impact of the COVID-19 pandemic, and the U.S. Federal Reserve’s new average inflation targeting framework have pushed short- and long-term inflation expectations higher and increased uncertainty around the inflation outlook. A long-term U.S. dollar portfolio with a real return objective, like the EA, needs to maintain resilience against possible inflation surprises.

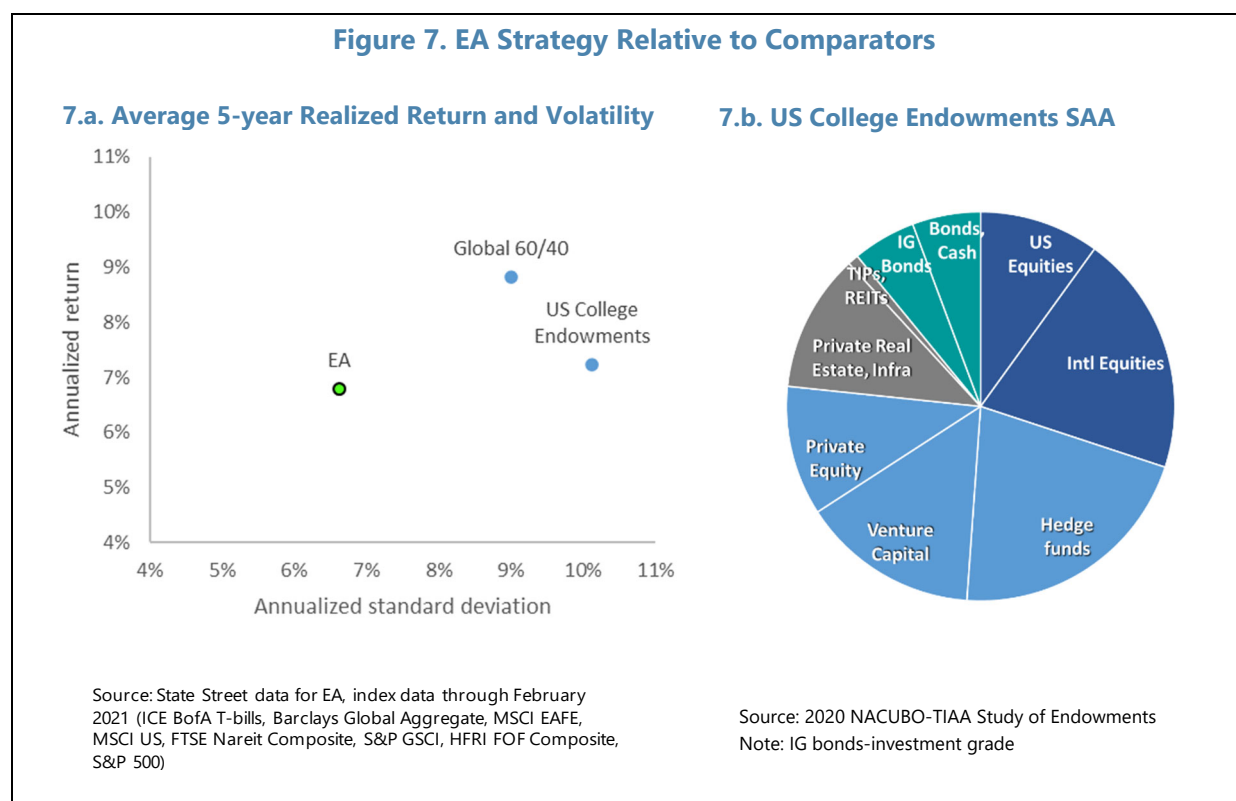
B. Strategic Considerations

9. While the EA’s strategy has performed well in achieving the 3 percent real return target since inception, it is highly unlikely that the existing strategy will meet the target over the next 15 years. Given the strategy maintains a majority allocation to fixed income and the near certainty that lower bond yields will ultimately result in lower long-term returns, achieving the return target would require an unrealistically strong performance from equities or a significantly greater portfolio allocation to riskier assets. Under current baseline projections, the existing strategy is expected to return around 1.8 percent in real terms with only around 27 percent probability that it will achieve the 3 percent target over the next 15 years. In other words, there is a roughly a three-in-four chance that the return target will not be achieved over the long-term (Figure 6).



10. In addition to potential refinements to the EA’s investment strategy, a reduction of the EA’s return target should be considered in light of the lower market return projections. While there is room to expand the risk profile of the EA’s investment strategy, an allocation to equities of around 70 percent would be required to achieve the 3 percent real return target with a meaningful degree of confidence. An allocation of this size is not unusual for some long-term investment portfolios, but it would represent a significant adjustment to the otherwise gradual evolution of the EA strategy envisaged when the portfolio was created. It could also result in a strategy that is better positioned in times of economic growth but less resilient to varied economic regimes in the long-term. For these reasons, it may be prudent to consider a balance between a reduction in the EA’s return target in conjunction with a moderate expansion in the risk profile of its investment strategy.

11. There is considerable scope to increase the EA’s allocation to riskier assets to improve potential investment return. Given the EA’s long-term investment horizon, and by comparison to the investment strategies of other long-term investors, there is capacity in the EA to increase the allocation to riskier assets. The EA has a conservative SAA and risk profile compared to other endowments (Figure 7). Most endowments typically hold a larger allocation of equities of around 60 percent. Many also hold sizeable allocations to illiquid or alternative assets (such as private equities and hedge funds) depending on their return or payout targets. The higher short-term volatility of these assets can be tolerated since the key risk to these portfolios, similar to the EA, is erosion of the real value of capital and reduction in the real value of spending over the long-term. Given the room to increase risk profile, and the relatively attractive compensation for accepting additional risk at this time, there is a good case for refining the EA’s asset allocation and diversification to seek higher potential returns.



12. Refinements to the EA's investment strategy would begin with a further reduction in the portfolio allocation to government bonds. Fixed income has historically provided multiple benefits to a balanced portfolio, including capital preservation, diversification, liquidity, and a steady income stream. Following the multidecade decline in yield levels across developed markets to near or below zero, bonds now offer little income and limited ability to offset losses from risk assets during downturns. The potential drag on return from the EA's relatively large allocation to fixed income was apparent during the last review in 2018. For this reason, the Board approved a small reduction in the allocation to DM government bonds. Subsequent declines in bond yields have lowered prospective returns further. In addition, yields have now reached levels that limit the ability of DM government bonds to protect the value of the EA during market shocks. Maintaining the large allocation to fixed income increases the risk of the EA losing purchasing power.

13. The EA's expected return could be improved, and its long-term resilience sustained by increasing and diversifying the current allocation to real assets. The EA's current allocation to real assets consists of a 20 percent allocation to US TIPS and a small allocation to publicly listed real estate investment trusts (REITs). This exposure was aimed to provide inflation protection and enhance income generating potential. However, US TIPS will likely become a significant drag on the portfolio's performance going forward given their negative real yields, which are well below the EA's real return target. Reducing the current allocation to US TIPS and increasing the allocation to other real assets would likely improve the EA's return generating potential while maintaining long-term resilience against inflation.

14. Real assets such as infrastructure and real estate are particularly well suited for the EA.

Investments backed by real assets, such as real estate and infrastructure, have some bond-like characteristics. Over time, a high proportion of their return is generated from current income and their value is supported by the underlying assets. These assets offer genuine portfolio diversification over time, resilience against inflation, and generate typically stable real income streams. Their relatively high yields compared to other assets make them particularly attractive in the current low interest rate environment. In addition, while REITs and infrastructure equities will have similar risk to other equities over the short-term, they are likely to exhibit lower longer-term risk which makes them particularly suitable for long-term portfolios. This ability to diversify risk over time is demonstrated by historical REITs returns (Box 1).

Box 1. Real Estate and Infrastructure

Real estate and infrastructure investments offer diversification and inflation hedging properties to a long-term multi-asset portfolio. These investments provide long-term exposure to high quality asset-backed cash flows that have the potential to reset higher as prices and inflation rise. For example, many infrastructure assets tie their contracts or concessions directly to CPI or other inflation measures and similarly, real estate leases are often structured to account for the potential effects of inflation. Infrastructure investments also often include regulated and long-term contracted assets for essential services such as utilities. These market sectors have historically generated strong returns during periods of rising inflation. In addition, their range of low correlations to a wide variety of assets further adds to their potential diversification benefit. There are strong similarities between the real estate and infrastructure sectors and some overlap between the two for assets such as data centers. The infrastructure sector is expected to grow rapidly in the years ahead with significant new investments in renewable energy generation and transmission.

Figure 1. Asset Returns in Different Inflation Regimes (from 1997*)

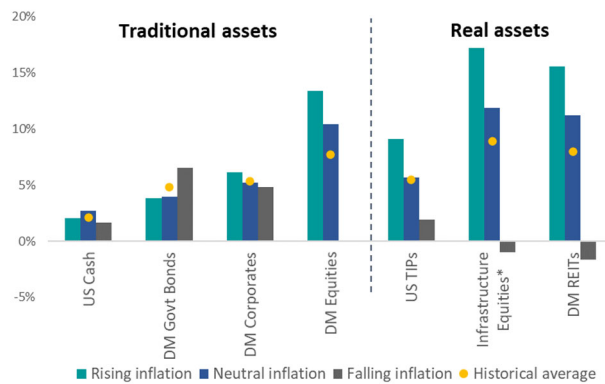


Figure 2. Historical Correlation Matrix (from 2003)

	US Cash	DM Govt Bonds	DM Corporates	High Yield - BB	DM Equities	US TIPs	Global Infra	DM REITs
US Cash	1.00							
DM Govt Bonds	0.14	1.00						
DM Corporates	-0.12	0.43	1.00					
High Yield - BB	-0.16	-0.02	0.73	1.00				
DM Equities	-0.10	-0.25	0.47	0.70	1.00			
US TIPs	0.03	0.58	0.65	0.43	0.20	1.00		
Global Infra	-0.07	-0.02	0.58	0.73	0.83	0.34	1.00	
DM REITs	-0.07	0.03	0.54	0.71	0.78	0.34	0.76	1.00

Source: Bloomberg data from January 1997 (*Infra equities from Jan 2003) to March 2021, staff calculation. ICE BofA 3M T-Bill Index, ICE BofA 1-10yr Indices for US, EUR and Sterling Corp; Bloomberg Barclays indices for US HY, Global Tsy (GDP Wt) and TIPs; DJ Global Infrastructure Composite Index, FTSE E/N Dev REITs Index and MSCI World Index. Inflation regimes based on data from Survey of Professional Forecasters and Michigan Survey

Publicly listed real estate and infrastructure equities have a higher yield than overall equities and bonds, making them particularly attractive in the current low yield environment. Their income stream is relatively stable and supported by contractual cash flows. While these investments will exhibit high short-term volatility similar to or possibly higher than other equities, their returns have potential for more rapid

Box 1. Real Estate and Infrastructure (Concluded)

mean reversion over long-horizons. This is evident in the historical investment returns for REITs, which show an improvement in risk relative to broader equities as the horizon extends. This time-diversification is also expected with infrastructure equities, however the available time series of returns for this sector are insufficiently long to demonstrate this yet.

Figure 3. Historical Yields

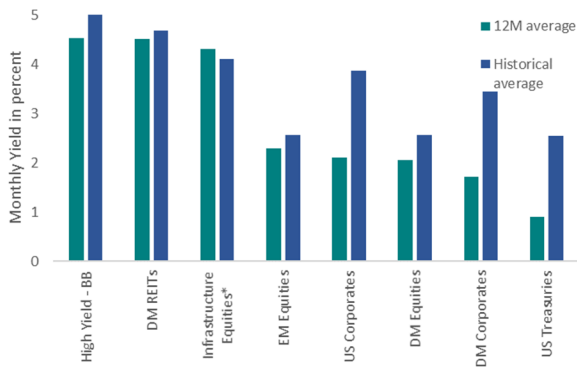
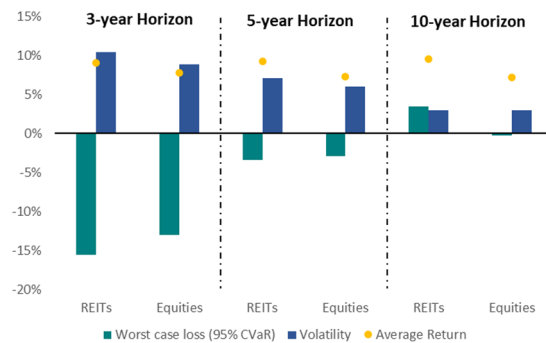


Figure 4. Long-term Risk and Return for REITs and Equities



Source: Bloomberg yield and dividend yield data from 2007 (Infra equities from 2014). Long-term data for FTSE EPRA Nareit Developed REITs and MSCI World Indices from December 1985

Public market securities such as listed real estate and infrastructure equities have kept pace with private investments over time despite short-term deviations in performance. Most endowments allocate a meaningful amount to private investments in these sectors given the long-term investment horizon of their assets and the potential for earning an illiquidity premium. Manager selection and access to suitable opportunities are critical for private investments. On the other hand, publicly listed investments such as REITs can provide more immediate market exposure and benefit from greater liquidity, transparency, flexibility, and lower fees. A combination of private investments and publicly traded securities in a portfolio can be complementary and also facilitate more optimal management of liquidity constraints.

Figure 5.a. Public and Private Real Estate Performance

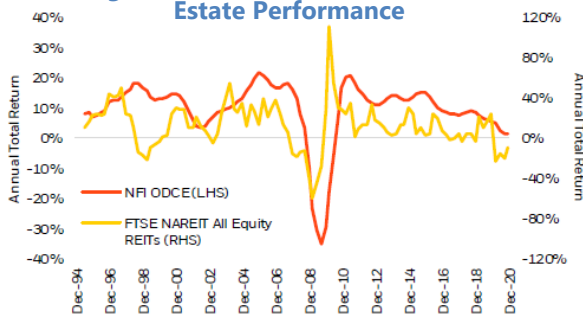
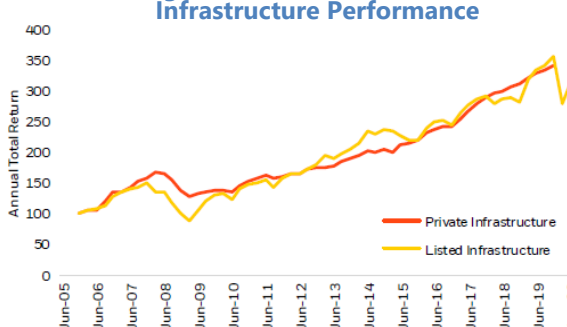


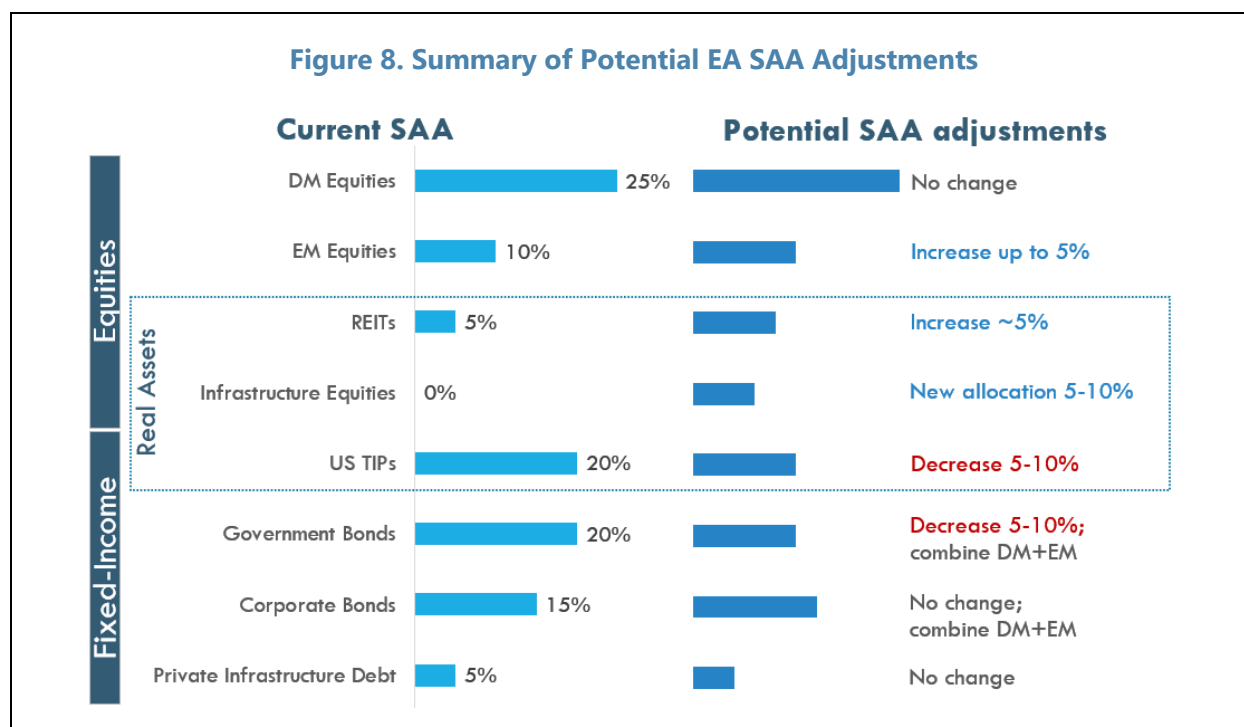
Figure 5.b. Public and Private Infrastructure Performance



Source: BlackRock data as of December 2020. FTSE, EPRA and IPD for real estate; Cambridge Infrastructure Index (private infra) and FTSE Developed Core 50/50 Index for infrastructure. Data excludes management fees, transaction costs or expenses.

15. Maintaining a relatively balanced distribution across fixed-income, equities, and real assets continues to be important under the current market outlook. Investment alternatives for the EA could be considered with reduced allocations to US TIPS and government bonds, an increased allocation to global REITs, and a dedicated allocation to publicly-listed infrastructure

equities.³ The allocation to REITs and infrastructure equities would improve the EA’s expected return and provide resilience against inflation in place of US TIPs. Other meaningful adjustments to the asset allocation could include combining developed and emerging market allocations into global allocations for both government and corporate bonds. This would aim to achieve improved diversification for a reduced overall allocation to government bonds.⁴ A small increase in EM equities could also be considered to enhance the expected return and risk profile, and in light of their relatively favorable valuations. A summary of potential adjustments to the EA’s strategic asset allocation is presented in Figure 8. Some implementation arrangements could also be refined to potentially improve performance, as discussed in the next section.

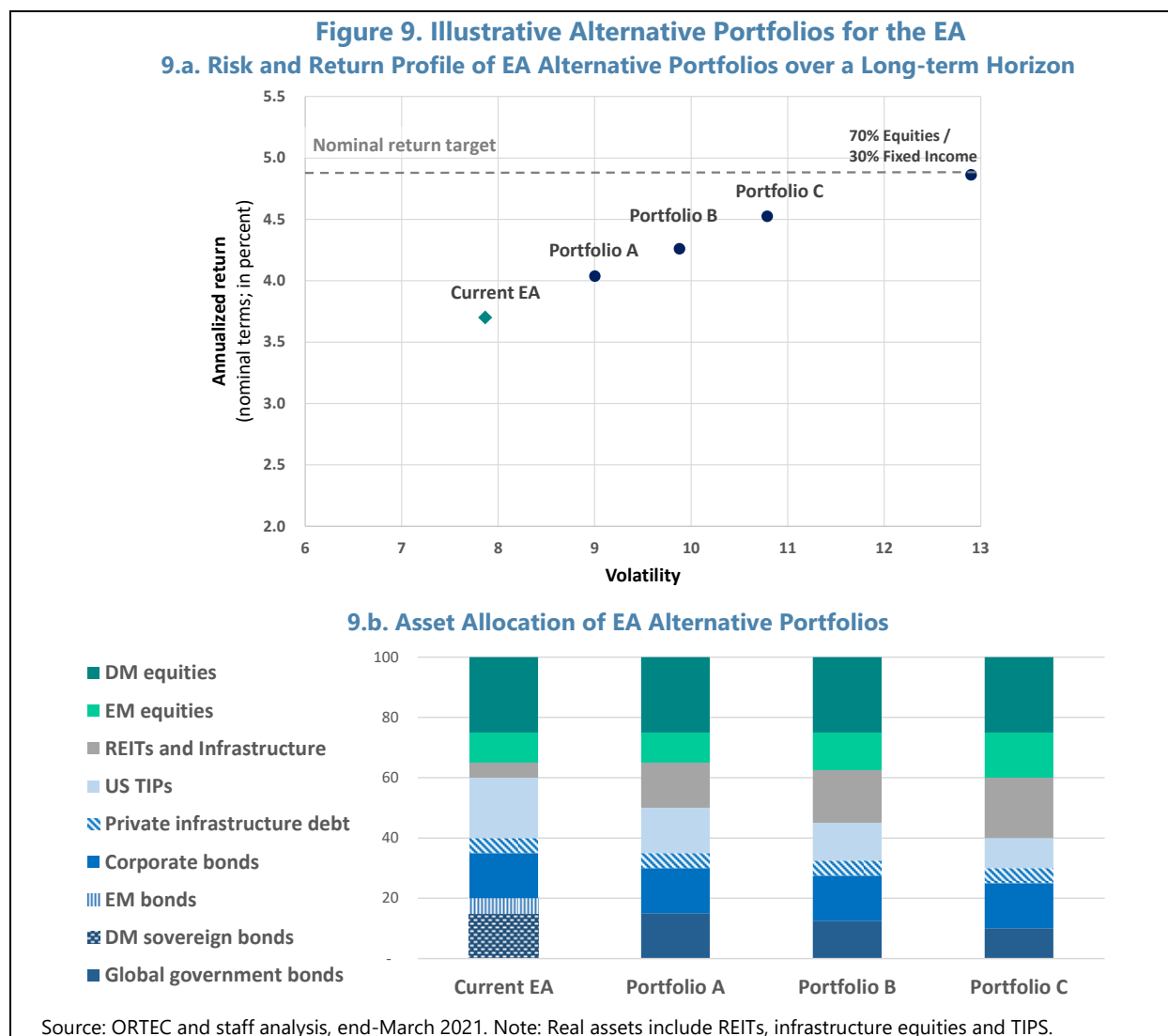


16. A lower return target should be considered in conjunction with refinements to the SAA. Directors may wish to consider a small but meaningful reduction to the EA’s real return target, to say 2.5 percent to recognize the challenge the current market outlook presents to the EA. To illustrate a possible range of alternatives and their risk return profiles, several alternative SAAs are presented in Figure 9 and Annex 1. These alternatives progressively build in the suggested refinements to the current strategy and are in line with the spirit of a gradual evolution of the EA.

³ The EA’s existing DM and EM equity benchmarks already include listed infrastructure equities. The EA has also recently implemented a limited allocation to private infrastructure debt as part of its fixed-income assets.

⁴ The proposed global government allocation would entail a roughly 70:30 weight between DM and EM countries and would further mitigate concerns over single country concentration risk, especially over those countries that are near the BBB+ minimum credit rating threshold. For the global corporate bond allocation, adding hard currency EM issuers, which were already eligible in the EM bond allocation, would expand the opportunity set to improve portfolio diversification and enhance yield.

With these alternative SAAs, the chance of achieving the 3 percent real return target would improve somewhat but would still be less likely than not. A real return target of around 2.5 percent is broadly between the expected mean returns of *Portfolios B and C*. Based on Directors' feedback, staff will develop a preferred SAA for the Board's consideration along with a proposal for a commensurate revision to the return target.



C. The Role of Active Management in the EA

17. The EA was established with a 'core-satellite' structure. The core of the portfolio is invested passively (the passively managed portion) pursuant to a strategic asset allocation approved by the Board and passive investment arrangements established by the Managing Director. A limited portion of the portfolio, a satellite of no more than 10 percent, is managed under an active strategy (the actively managed portion). The investment parameters for the actively managed portion were

established by the Board in 2016. These parameters restrict the investment universe to the asset classes included in the passively managed portion while providing external managers with significant flexibility to take tactical asset allocation tilts and hold relatively concentrated portfolio positions. All the EA assets in both the passive and active portions are externally managed.

18. Sufficient experience has now been gained to consider the merits of the active strategy and more broadly review the core-satellite structure. The actively managed portion was initiated in 2016 with a targeted pilot allocation of five percent of the EA. The goal for this pilot allocation was to assess whether the active strategy could increase the likelihood of the EA achieving its return target over time, and more generally inform the evolution of the overall EA strategy. Two investment managers with strong track records for multi-asset class mandates were selected by the IOC. The managers were given the objective of achieving the EA’s 3 percent real return target under the investment parameters approved by the Board, which gave them significant leeway to manage their portfolios across the asset classes included in the passively managed component. Since the inception of their respective mandates, the two managers have pursued distinct strategies and have both achieved the return target.

19. It is informative to compare the performance of the actively managed portion with the passive strategy (Figure 10). The return since inception in 2016 is slightly less than that of the passive strategy on a net of fees basis.⁵ It is also notable that the volatility of monthly returns is slightly higher, as is the ex-ante estimated VaR over time. The higher risk numbers were expected and result from the more concentrated positions held by the active managers. On average, the managers’ allocations between equity and fixed income were quite stable, and close to the 40/60 split maintained in the passively managed portion. This explains why the performance of the active portion tracks the passive quite closely over time. Periods of relative under- or over-performance were driven by two persistent differences between the active and passive strategies; the active managers would tend to hold a lower allocation to EM equities relative to DM than the passive strategy and a higher allocation to longer-dated corporate bonds relative to government bonds and TIPS. The higher fees for active management also weighed on performance over time.

Figure 10. Performance of EA Active and Passive Components – Net of Fees
(end-March 2021, in percent)

As of end-March 2021	FY2017 partial August 2016 - April 2017	FY2018	FY2019	FY2020	FY2021 to date	3 Year (Annualized)	Since Inception of Active Component (Annualized) 1/
EA - Active Component	1.30	4.36	5.90	2.55	15.16	7.60	6.20
Return of Passive Component over the same period	3.41	5.54	4.76	0.62	16.98	7.13	6.53
<i>Excess of Active over Passive</i>	-2.11	-1.18	1.15	1.93	-1.82	0.47	-0.33
3% + CPI						5.06	5.20
Annualized volatility - Active Component							7.29
Annualized volatility - Passive Component							6.69

1/ Inception of Active component August 2016

Source: State Street

⁵ Management fees for the active and passive portion are on average 34 bp and 7 bp respectively.

20. One interpretation of this comparison is that investing the core of the EA in a static allocation under passive arrangements did not incur an opportunity cost over the last few years. In this respect, the pilot allocation to the actively managed strategy has been extremely useful in informing the effectiveness of the core passive strategy. With this reassurance, it is natural to ask whether the actively managed satellite should be discontinued. There is not a strong case for increasing the current 5 percent allocation based on its performance, also, the information value of the actively managed strategy will likely diminish over time. For these reasons, staff is inclined to discontinue the actively managed satellite.

21. A separate question is whether active management might be more effective in the EA in a more targeted role. An alternative approach would be to employ active management at the single asset class level, rather than the broader multi-asset class mandate. Staff’s on-going research and comparative analysis of active and passive management has not established a broadly supportive case for active management in general. However, comparing the benefits of active and passive management across each individual asset classes, they noted several compelling potential benefits to active management for EM equities over the current approach of tracking a market capitalization index (Box 2). Similar benefits were not clearly identified for any other asset classes.

22. Staff sees merit in replacing the ‘core-satellite’ structure for the EA with a model that would establish active or passive management at the single asset class level. Under this approach, the Board would continue to establish the strategic asset allocation for the EA overall. In addition, the Board would decide the key investment modalities for each asset class. Specifically, it would decide which asset classes within the EA could be managed actively and which would continue to be managed passively, as well as identifying which asset classes could be invested in private versus public markets. Over time, this simple granular structure could more easily accommodate the gradual evolution of the EA’s investment strategy. Initially, staff would recommend allowing active management only for EM equities.

Figure 11. Potential Refinements for the EA

Investment Objective

- Lower the long-term real return target, perhaps to 2.5 percent in USD terms

SAA and Investment Strategy

- Reduce allocation to US TIPS and DM government bonds
- Increase allocation to global REITs and establish new allocation to infrastructure equities
- Possibly increase allocation to EM equities
- Combine DM and EM in a global allocation for government bonds and corporate bonds
- Discontinue actively managed portion (satellite) and allow active management for EM equities

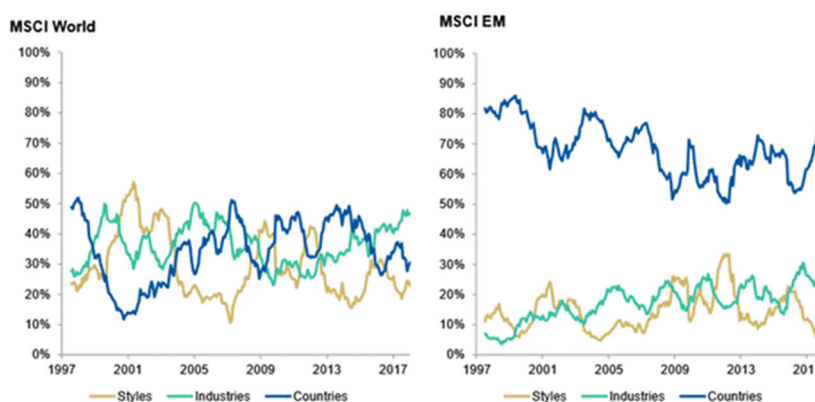
Box 2. Value of Active Management in EM Equity Markets

The equity allocations in the EA and the PRGT are invested passively, tracking market capitalization weighted indices. This investment approach has provided a reasonable, expedient way to establish the targeted strategic asset class allocations and has the additional benefit of low management fees. While replicating equity indices has been broadly effective, especially for DM equities, staff's analysis has identified several shortcomings and opportunities for enhancement through more active approaches for EM equities.

The most commonly tracked EM equity indices are constructed based on market capitalization and investability rules which create some unintended portfolio biases. In particular, market capitalization rules lead to large concentrations in a few countries, sectors, and companies. For example, the top ten countries account for about 90 percent of these indices; the top ten companies are primarily technology focused and account for over 20 percent of the total capitalization, even though these indices can contain thousands of stocks listed in many countries. The indices also have heavy concentrations in state-owned enterprises, which can raise some governance concerns. In addition, other investability rules related to the number of freely traded shares can exclude some small but well-established companies.

As index rules force portfolio concentrations to larger, mature companies and markets, the ability for passive strategies to capture the potential premium from investing in fast-growing EM economies is diminished. These concentrations leave little room to gain exposure to markets with more growth potential—an underlying motivation for investing in EM equities. Given the diversity among EM economies, there are markets which may be better positioned to benefit from positive long-term demographic trends and growth expectations. In fact, it is well-noted that country allocation decisions have contributed a significant portion of EM equity returns in absolute terms and relative to DM markets (Figure 1).

Figure 1. Contribution of investment factors to total return – Global versus EM Indices
Country allocation is a dominant factor in EM investing.



Source: MSCI

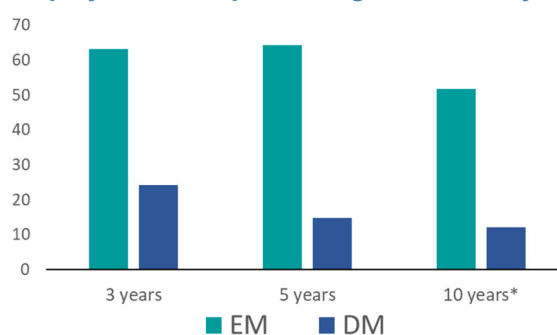
Active EM managers have been able to add value by identifying growth opportunities in markets through fundamental research. It has been noted that publicly available information, disclosures, and market research are less readily available in emerging markets compared to developed markets. As a result, skilled active EM managers have been able to conduct proprietary research and make investments that reflect well-informed valuation and growth expectations across different markets and sectors, to identify well-managed companies. In addition, some managers improve performance by hedging specific currency risks where economically possible.

Box 2. Value of Active Management in EM Equity Markets (Concluded)

An active investment approach in EM equities also enables managers to incorporate responsible investing considerations into the investment process. ESG data and information disclosures for many EM companies are also limited. In addition, the traditional means for conducting stewardship in DM markets (proxy voting, annual shareholder meetings) can be less effective in the EM context. Without the availability of third-party ESG data, investors need to conduct direct and primary due diligence with company management and policy makers, which is important given the governance and regulatory challenges of investing in some EM markets. Active managers have the ability to focus and make long-term investments in well-governed companies that have strong financial and ESG fundamentals and reduce exposure to structural biases that would lead to investments with higher ESG risk.

Evidence suggests that active EM investment approaches—without the constraints of index rules—have been able to outperform passive index replication strategies. Staff analyzed the historical returns of active and passive EM funds and concluded that active manager returns (after fees) outperformed their passive comparators on average. This result was notably different than in the DM equities market and other asset classes, where active manager returns consistently underperformed passive comparators over the same period (Figure 2).

Figure 2. Percentage of Active DM and EM Equity Funds Outperforming Passive Proxy



Source: Staff calculation and Morningstar data for surviving funds at December 2010, iShares, *prospectus benchmark.

FIXED-INCOME SUBACCOUNT

This section covers the FI Subaccount.⁶ Given that the FI's assets constitute the bulk of the Fund's precautionary balances, the FI's purpose is to generate income while protecting the Fund's balance sheet. The investment objective of the FI is to produce returns in excess of the three-month SDR interest rate, while minimizing the frequency and extent of negative returns and underperformance over an investment horizon of three to four years. It is invested in two tranches across a broad universe of high quality fixed-income instruments.

A. Background, Performance, and Recent Developments

23. The expanded investment strategy for the FI established in 2015 is designed to generate income while providing protection to the Fund's balance sheet. The investment objective of the FI strategy is to achieve investment returns that exceed the 3-month SDR interest rate over time while minimizing the frequency and extent of negative returns and underperformance over an investment horizon of three to four years. Assets in the FI are split in two tranches with

⁶ The FI was created in 2013 when the Rules were adopted. The FI was funded with the assets from the IA which were not attributed to gold sale profits. More background information can be found at

<https://www.elibrary.imf.org/view/IMF071/24764-9781484330876/24764-9781484330876/24764-9781484330876.xml>

differing duration benchmarks and eligible assets to strengthen resilience across varying market environments (Figure 12). Tranche 1 is a short-duration, actively managed portfolio in which external managers can adjust risk exposure to duration and credit assets according to market conditions. Tranche 2 is managed under a longer duration, buy-and-hold approach aimed at strengthening FI resilience during periods of falling rates and contributing higher income through earning a term premium in environments with stable upward sloping yield curves.

Figure 12. FI Strategy—Tranching and Eligible Assets

	Limitations	Tranche 1	Tranche 2
Features		Actively managed; short duration (0-3 years) 65 percent of total FI	Buy and hold investment strategy; longer duration (0-5 years); 35 percent of total FI
Group 1 Assets		<u>SDR or SDR- Component currencies</u> Government bonds Bonds issued by national agencies of the members whose currencies are in the SDR basket Bonds issued by international financial institutions Bank for International Settlements (BIS) obligations	
Group 2 Assets	Limited to 35 percent of total FI	<u>SDR or SDR- Component currencies</u> Asset-backed securities Covered bonds Corporate bonds Cash instruments US Mortgage-backed securities Subnational government bonds Non-SDR Government bonds	
		Derivatives allowed for hedging	

24. The expanded FI strategy has performed well in achieving its investment objective, generating a return consistently in excess of the SDR interest rate even during challenging market conditions. Since the strategy's inception, the overall FI has achieved a robust 44 bp over the SDR interest rate on an annualized basis (Figure 13). With its two-tranche structure, the FI strategy demonstrated resilience during marked shifts in interest rate markets and through the recent COVID-19 crisis (Figure 14a). The FI strategy has delivered returns consistently in excess of the SDR interest rate and outperformed the old strategy benchmark over the period. The new strategy also avoided the drawdowns that the old SDR 1-3 benchmark experienced in 2017 and 2018 as a result of rising interest rates (Figure 14b).⁷

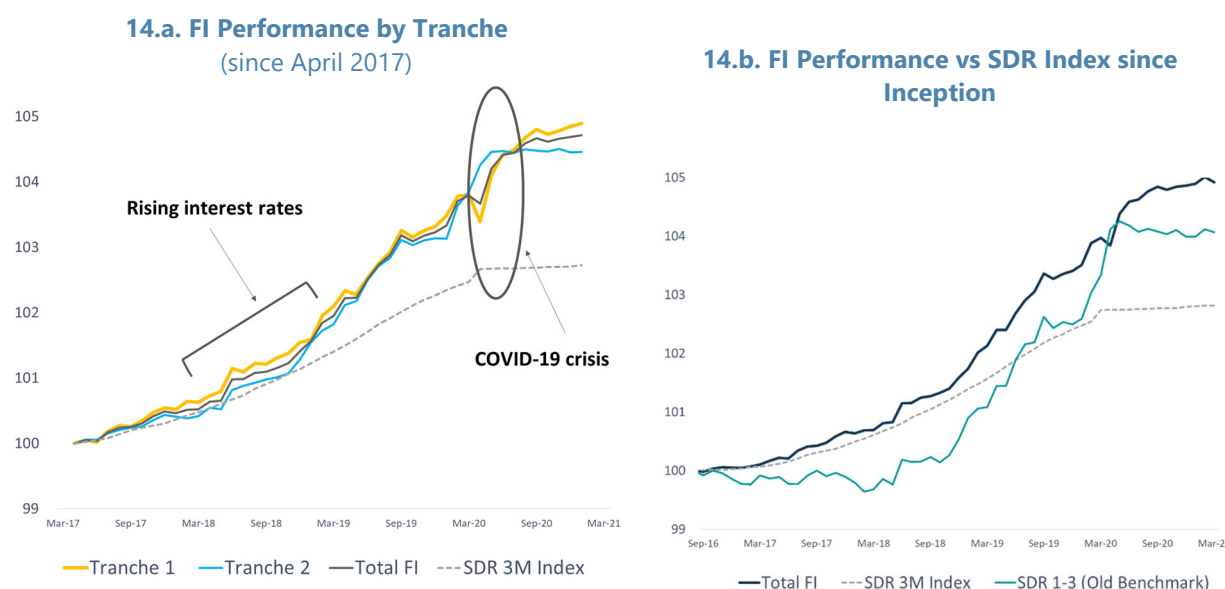
⁷ Since inception of the expanded strategy, the Sharpe Ratio of the FI was 1.21, higher than the previous strategy benchmark's of 0.52, indicating better risk-adjusted returns.

Figure 13. FI Performance Since Inception
(to end-March 2021)

	FY2017 (Aug to Apr 2017)	FY2018	FY2019	FY2020	FY2021 to end- March 2021	Since Strategy Inception (annualized)
Fixed Income Subaccount	0.22	0.61	1.56	1.93	0.47	1.03
Tranche 1	0.12	0.75	1.47	1.79	0.83	1.05
Tranche 2	0.30	0.47	1.65	2.23	-0.19	1.05
3-month SDRi	0.18	0.68	1.04	0.77	0.07	0.59

Source: State Street data net of fees. Strategy inception is Aug 2016 for FI and Tranche 1; March 2017 for Tranche 2.

Figure 14. FI Cumulative Performance
(to end-March 2021)

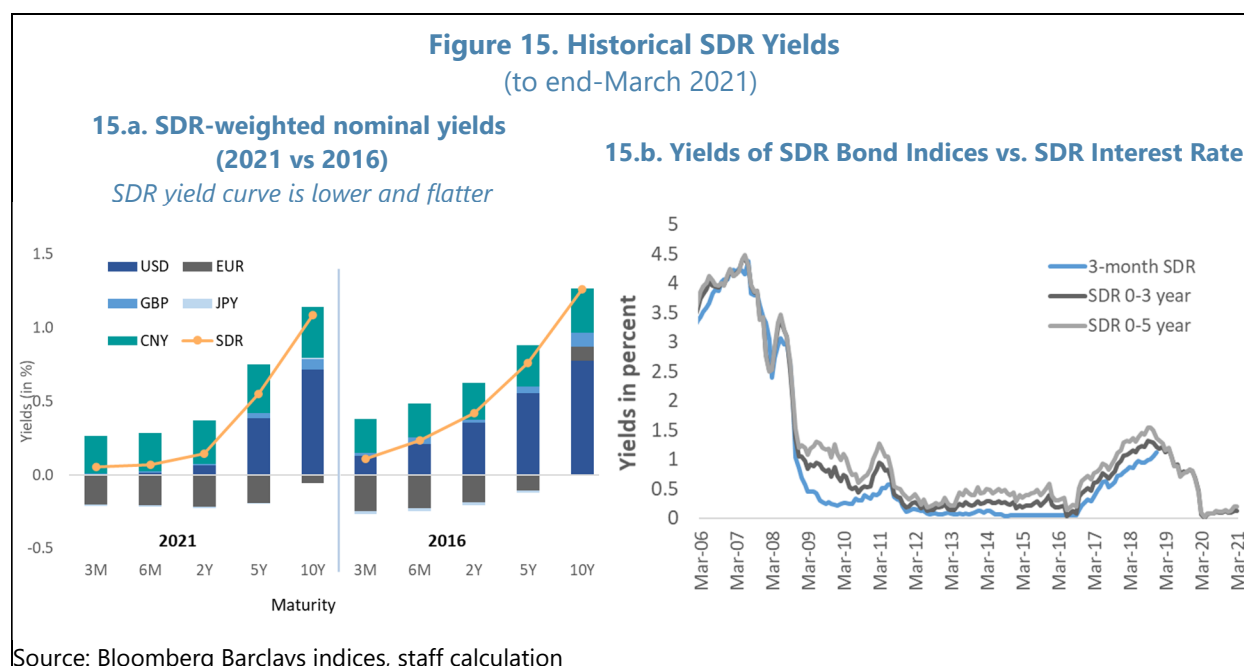


Source: State Street.

25. Effective implementation of the strategy has contributed to its strong performance.

Under delegated authority from the Board and the Managing Director, the IOC has overseen the implementation of the expanded strategy, including establishing risk controls and manager arrangements. The managers selected for Tranche 1 have performed well, making good use of the flexibility embedded in their guidelines which has allowed each to take distinct, diversifying strategies. The volatility of Tranche 1 aggregate returns since inception is lower than for four of the six managers, indicating the positive impact of diversification across managers. The IOC reviewed experience with the new strategy after it had been in place for three years and made several implementation refinements. In particular, the IOC drew on the flexibility provided by the Rules to adjust the split between Tranches 1 and 2 to 65/35 from the initial 50/50 to better balance term and credit risk premia. The FI’s cumulative performance since implementation of the new tranche split in November 2019 is 19 bp higher than it would have otherwise been.

26. Low yield levels and a flatter yield curve will limit future returns from short-dated fixed-income. SDR weighted government bond yields reached new historical lows in the first quarter of 2020 at the onset of the COVID crisis. Although they have since increased somewhat from those levels, SDR bond yields are still lower and the yield curve is flatter than five years ago (Figure 15). Continued fiscal and monetary stimulus could keep interest rates lower for longer, which will most certainly constrain future fixed-income returns and offer limited protection if and when rates increase.

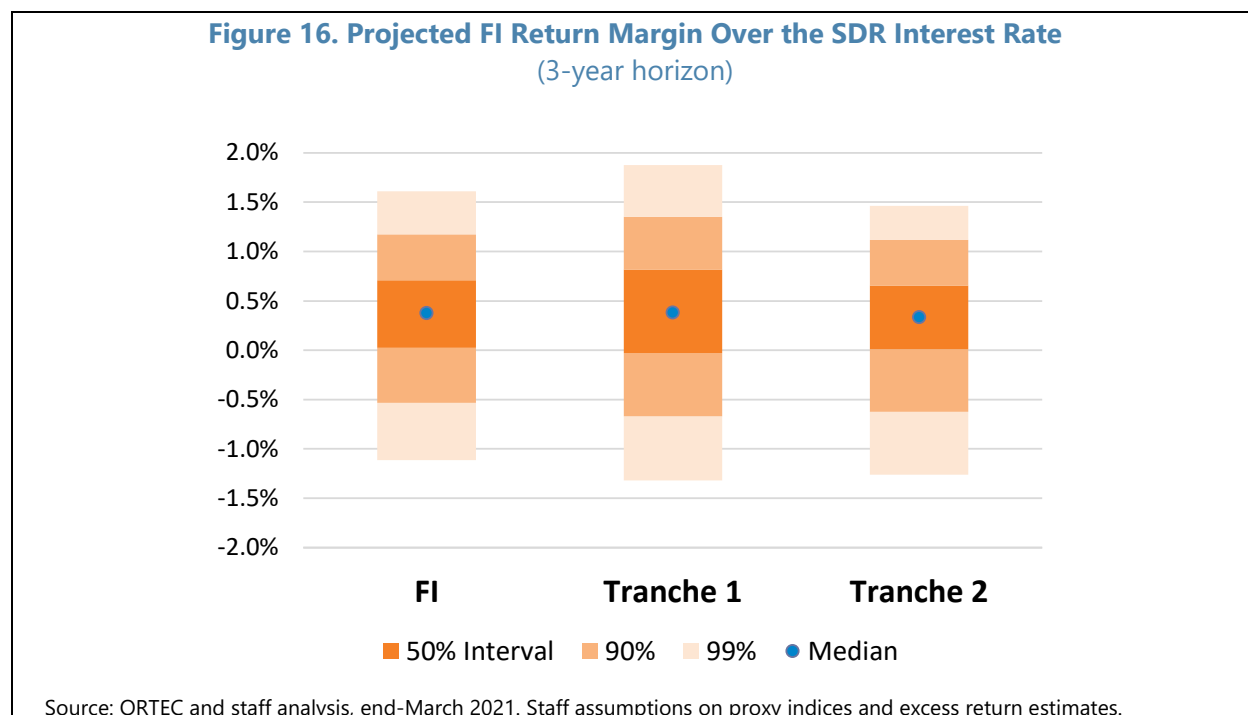


B. Strategic Considerations

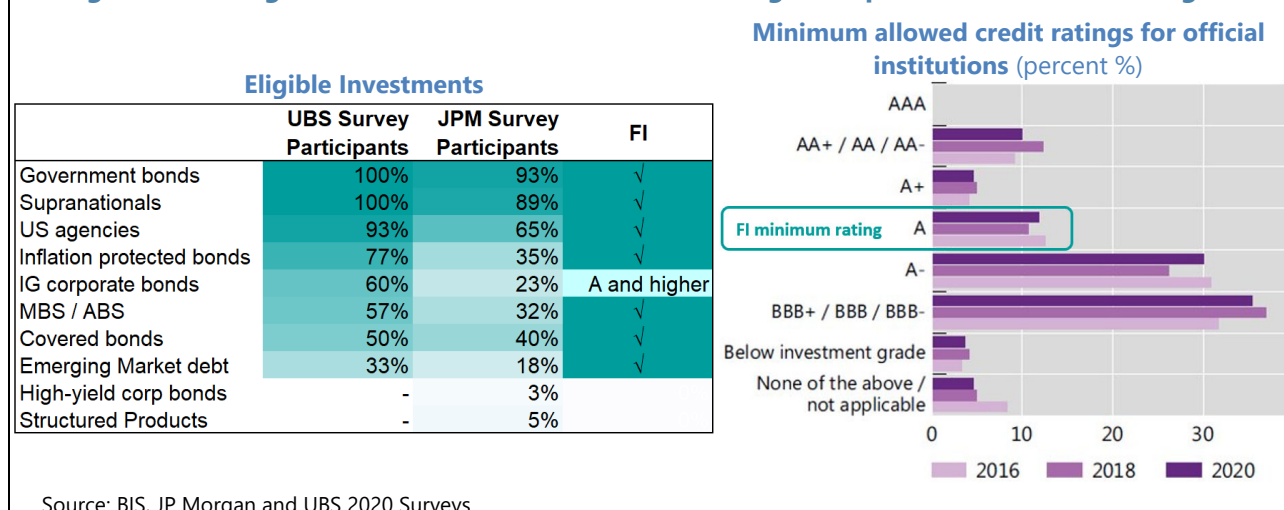
27. The FI's return margin over the SDR interest rate is likely to be lower going forward but is still expected to be positive. With SDR interest rates and term premia expected to remain low for an extended period, the return margin over the SDR interest rate is projected to be lower than it has been to date. Based on model portfolio simulations, the likelihood that the FI strategy will achieve a positive margin above the SDR interest rate over a three-year horizon is estimated to be 76 percent, with an expected average margin of 35 bp. Return margins for Tranche 1 are expected to be slightly higher than Tranche 2, reflecting additional risk premia from the broader set of eligible assets (Figure 16).

28. The expanded FI strategy is expected to remain resilient across most market conditions, however, the risk of underperforming the SDR interest rate cannot be eliminated completely. The estimated portfolio performance in Figure 16 incorporates the impact of the 5 bp SDR interest rate floor, which lowers the projected return margin by around 20 bp over a three-year horizon. The short-term risk of underperforming the SDR interest rate increases in the low yield environment, in part because of the proximity of the floor. A scenario of sustained negative interest

rates would undermine the ability for the FI to achieve a positive return over the SDR interest rate. While not imminent, this scenario presents a risk that cannot be mitigated by investment strategies established for the FI but could be addressed through current provisions for transferring assets (Box 3).



29. Opportunities to enhance the return of a fixed-income reserve portfolio like the FI in the current low yield environment are limited. In general, fixed-income investors have been attempting to enhance returns by diversifying into a broader range of fixed-income instruments and employing more active risk management. This trend has been evident in recent years among central bank reserves portfolios which have typically been invested to achieve safety and liquidity as a primary objective with generating income as a secondary objective. These reserves portfolios have notably increased their allocation to inflation-linked bonds, investment grade corporate bonds, and EM bonds; greater degrees of active management are also being adopted. In this regard, the expanded FI strategy is already well advanced (Figure 17).

Figure 17. FI Eligible Investments and Minimum Ratings Compared to Reserves Managers


30. Experience with the expanded FI strategy has indicated some ways for the strategy to evolve and potentially improve the investment return without a material increase in risk. As demonstrated by the successful implementation of the FI strategy and the positive impact of recent refinements made by the IOC, implementation efficiency and agility can contribute meaningfully to enhance returns. Further delegation of responsibility to refine the management of the strategy would be beneficial. In addition, broadening the universe of eligible investments has diversified sources of income and risk premia, and contributed to the portfolio’s resilience. The universe could be expanded a little further by lowering the minimum eligible credit rating while maintaining appropriate risk controls and high credit quality of the portfolio overall. These two ideas are discussed in more detail below.

31. Additional delegation of responsibility to the Managing Director for the selection of benchmarks would improve implementation agility. Currently, the FI’s tranche-level benchmarks are written into the Rules, while benchmarks for the EA and TA are considered part of risk controls delegated to the Managing Director. Aligning the approach to risk controls for the FI with the approach taken for EA and TA would allow the Managing Director further agility to refine implementation parameters for the FI as appropriate including for periodic shifts in market regime.⁸ The Board could establish a maximum average duration limit of say 3.5 years to guide the strategic risk profile for the FI overall. As part of annual reporting, any benchmark changes and portfolio performance measured against benchmarks would be reported to the Board.

32. In addition, staff recommends expanding limits marginally for existing eligible assets, including the Group 2 assets limit, to provide further scope for implementation refinements.

⁸ For example, if yields normalize at higher levels it may be beneficial to manage the Tranche 2 buy-and-hold strategy against a longer duration benchmark.

As experience has shown, the flexibility to invest in Group 2 assets has provided Tranche 1 managers the ability to diversify their strategies, balance risk premia, and provide some protection against rising yields. The existing limit of 35 percent of the total FI currently provides sufficient room for managers to adjust Group 2 holdings as appropriate (from current Group 2 holdings of around 25 percent). However, increasing the limit to 40 percent could ensure that future implementation decisions—including tranche split reviews and manager arrangements—could be operationalized. For example, a wider allowance for Group 2 assets could accommodate a future increase in the Tranche 1 share, up to around 70 percent of the FI, without disrupting the strategies of individual managers.

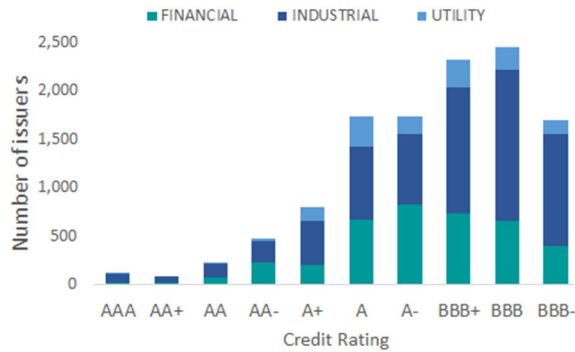
33. Directors could also consider broadening the eligible investment universe to include BBB-rated securities in line with the EA, which could further increase diversification and improve return prospects over time. Managers have highlighted that the ability to invest in BBB corporate bonds would meaningfully broaden the opportunity set and increase the return prospects of Group 2 assets. It would also enhance diversification through access to a significantly higher number of non-financial corporate bond issuers—a majority of which are in non-cyclical, defensive industries that have been more resilient to market downturns (Figures 18 and 19). FI managers have already demonstrated the value of actively and prudently adding credit risk premia to the FI—drawing on their extensive experience with credit assets, including corporate bonds. Lowering the minimum credit rating to BBB- for corporate bonds and BBB+ for all other asset classes from single-A would align with the EA and PRGT as well as with many reserves managers (Figure 16). The Managing Director could establish additional risk controls to limit overall BBB exposure (e.g., a market value limit on BBB-rated securities or a minimum average credit rating requirement of at least single-A). Additional safeguards already in place such as the ability for the Managing Director to set higher minimum ratings for specific asset classes, rules for divestment of securities that cease to meet the rating threshold and strict concentration limits would continue to limit potential credit risks.⁹

34. These refinements collectively would increase the probability of achieving higher margins over the SDR interest rate without materially increasing risk (Figure 20). Broadening the universe of eligible investments to allow a limited exposure to BBB-rated securities would provide managers the opportunity to diversify and more fully utilize the permitted allocation to Group 2 assets overall. In addition, a slightly higher allocation to Group 2 assets would complement any incremental future increases in duration and maintain a balance between term and credit risk premia. As illustrated by a reference portfolio, the combination of moderate additional duration and credit risk premia has the potential to increase the probability of achieving a given margin over the SDR interest rate over a 3-year horizon.

⁹ This provision allows the Managing Director to differentiate credit exposure across several asset classes through manager level guidelines. For example, even though the Rules currently permit single-A rated assets, Tranche 1 managers are not permitted to invest in securitized assets rated lower than AAA.

Figure 18. EUR and USD Corporate Issuers by Credit Rating and Industry

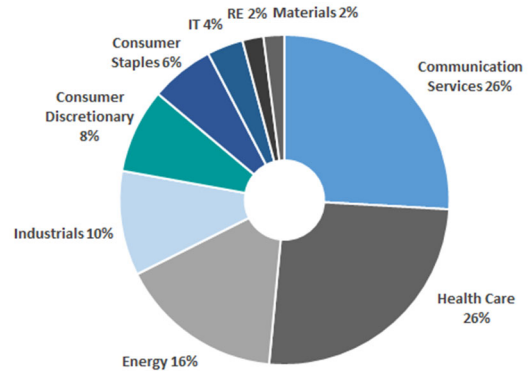
Number of issuers increase 124 percent when BBB issuers are added to the eligible universe.



Source: Bloomberg Barclays Global Aggregate Index as of December 2020. EUR and USD issuers comprise 84 percent of the Index.

Figure 19. Large-Cap BBB Non-Financial Corporate Bond Sector Breakdown

More sector diversification in the BBB universe, including to defensive sectors.

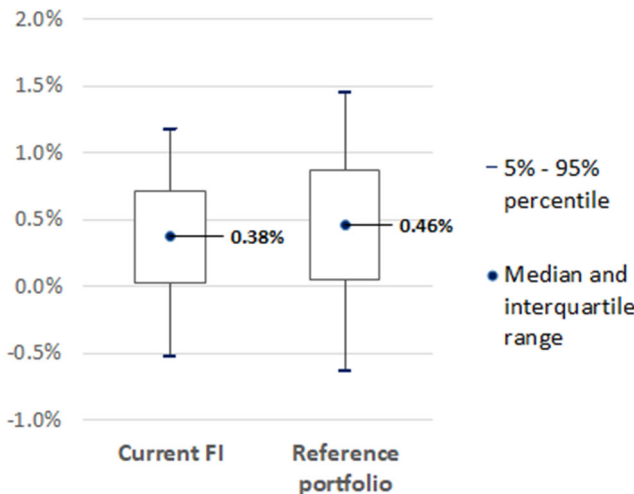


Source: Large-cap issuers in Bloomberg Barclays US Corporate BBB-Only Index as of August 2019, excluding financials.

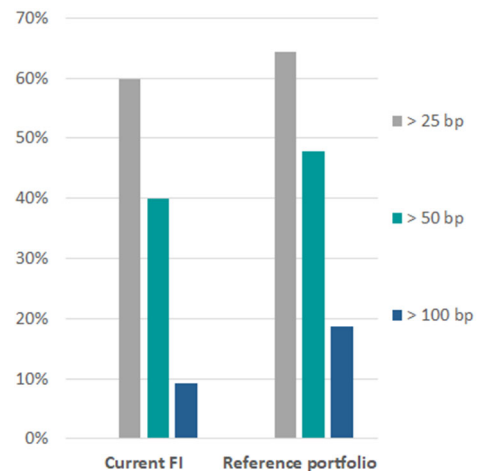
Figure 20. Illustrative Impact of FI Refinements

(3-year horizon)

Distribution of Projected Margin Over SDR Interest Rate



Probability of Achieving Margin over SDR Interest Rate



Source: ORTEC and staff analysis, end-March 2021. Current FI has benchmark duration of 1.8 years and Group 2 assets of 26 percent. Reference portfolio has benchmark duration of 2.5 years and Group 2 assets of 36 percent (including ~7 percent BBB-rated securities).

35. In light of the challenging market environment, maintaining the investment objective without specifying a numerical target would seem prudent. An evolution of the current strategy along the lines described above could help improve FI’s returns in line with its aim of income generation and balance sheet protection. The scope for setting a specific numerical target, such as the 100 bp margin above the SDR interest rate envisaged under the NIM, could be revisited at a

later stage as further experience is gained and once interest rates have returned to more normal levels.

Box 3. Addressing the Risk of Sustained Negative Interest Rates on the FI

The FI is funded from the special and general reserves which constitute the bulk of the Fund's precautionary balances.¹ The indicative medium-term target for the precautionary balances was recently raised to SDR 25 billion; the minimum floor has been maintained at SDR 15 billion.² As a result, sizeable increases to the FI may be considered in the coming years through transfers of annual net income from the GRA, raising the FI's balance from the current level of SDR 16.5 billion.

While the FI strategy has successfully met its investment objective of exceeding the SDR interest rate and demonstrated resilience across different market environments, the risk of underperforming the SDR interest rate in the future cannot be completely eliminated. In particular, because the SDR interest rate has a floor of 5 bp, it would become increasingly difficult for the FI strategy to achieve a return in excess of the SDR interest rate through a period of sustained negative interest rates.³ While the likelihood of sustained negative, SDR weighted interest rates is not imminent, it does present a unique risk to the Fund which cannot be mitigated by investment strategies established for the FI. Should this risk materialize, Directors would be notified.⁴ A combination of several mitigating options would be available for the Board to consider:

- i) The first option would be to suspend any future transfers from the General Resources Account (GRA) to the FI. For unrelated reasons, the Board has suspended transfers in the past.
- ii) The second option would be to transfer assets from the FI back to the GRA, where the assets would earn the SDR interest rate. According to Article XII, Sec. 6(f)(vi), the Board can authorize a reduction in the IA's assets, which would be then transferred to the GRA.⁵
- iii) The third option would be to transfer assets from the FI to the EA, where the assets would then be invested in accordance with the EA's investment objective and strategy. According to the Rules (¶4), the Board can authorize transfers between the FI and EA.

It should be noted that all options may have implications for other financial policies and operational processes that would require further staff analysis at the time.

1/ This excludes the amount in the special reserve invested in the EA.

2/ See *The Acting Chair's Summing Up, Review of the Adequacy of the Fund's Precautionary Balances Executive Board Meeting 20/105* October 31, 2020 (SU/20/158, 11/09/20)

3/ The SDR interest rate provides the basis for IMF's internal operations including remuneration and interest expense. On October 24, 2014, Rule T-1 that determines the calculation of the weighted average of the SDR interest rate was changed so that if the combined market rate falls below 5 bp, the rate shall be established at 5 bp. The Executive Board adopted this change in response to very low and negative SDR component interest rates. Market implied SDR rates can fall below 5 bp.

4/ For example, through the *Annual Investment Report for the IA and TA* or the *Review of the Fund's Income Position*.

5/ The IA shall be terminated in the event of liquidation of the Fund and may be terminated, or the amount of the investment may be reduced, prior to liquidation of the Fund by a seventy percent majority of the total voting power.

Figure 21. Potential Refinements for the FI*Asset allocation and Tranches*

- Delegate the selection of benchmarks to the Managing Director; maximum average FI duration of 3.5 years

Eligible Investments—Maximum share of Group 2 assets

- Expand Group 2 assets limit from 35 percent to 40 percent of total FI

Minimum credit rating

- BBB- for corporate bonds, and BBB+ for all other asset classes

TRUST ASSETS

This section focuses on PRGT assets, which make up 95 percent of the total TA balances. The Board's review of the TA in 2017 established a new expanded investment strategy for PRGT assets. For other TA, consisting of CCRT and PRG-HIPC trust balances, the Board reaffirmed the suitability of the existing fixed-income investment strategy.¹⁰ To date, there have been no changes to the financial structure of either CCRT or PRG-HIPC trusts that would impact the suitability of their current investment strategy.¹¹ The Guidelines approved in 2017 establish the investment objectives and policies to guide the investment of all trust assets.

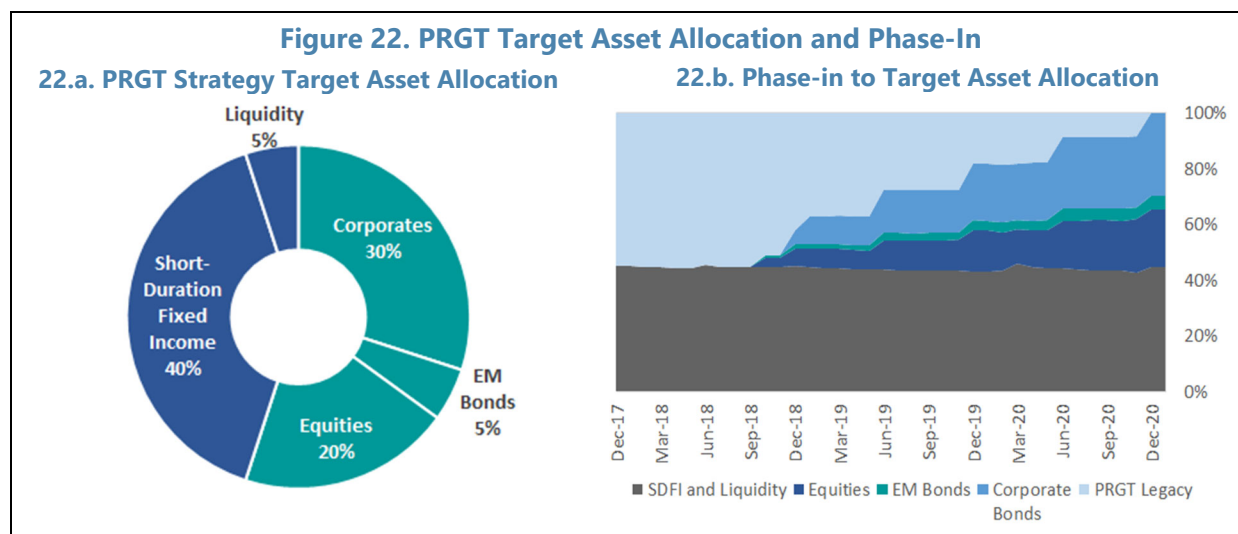
A. Background, Performance, and Recent Developments

36. The Board's review in 2017 established new investment objectives aligned with the purposes of the PRGT assets and its self-sustaining financial framework. The investment objective is to generate a return of 90 bp above the SDR interest rate over a long-term horizon of at least 10 years. PRGT's financial framework enables its balances to be invested over a long investment horizon to generate sufficient income to cover subsidization requirements and administrative expenses. It was estimated in 2017 that a long-term return of 90 bp above the SDR interest rate on the PRGT's endowment at the time could support a self-sustained lending capacity for PRGT of SDR 1.25 billion per year on average.

¹⁰ Investment assets of both CCRT and PRG-HIPC trusts are invested conservatively, consistent with their respective liquidity requirements and limiting the risk of impairment of capital over a short horizon (less than three years). The current strategy provides sufficient flexibility for each trust to meet their different objectives through a suitable mix of investments in the liquidity component (deposits) and the investment component consisting of highly-rated short duration fixed-income instruments. More background information for all trust assets can be found at <https://www.elibrary.imf.org/view/IMF071/24764-9781484330876/24764-9781484330876/24764-9781484330876.xml>

¹¹ The review will take into account any developments that may impact the investment objectives and risk tolerance for other TA.

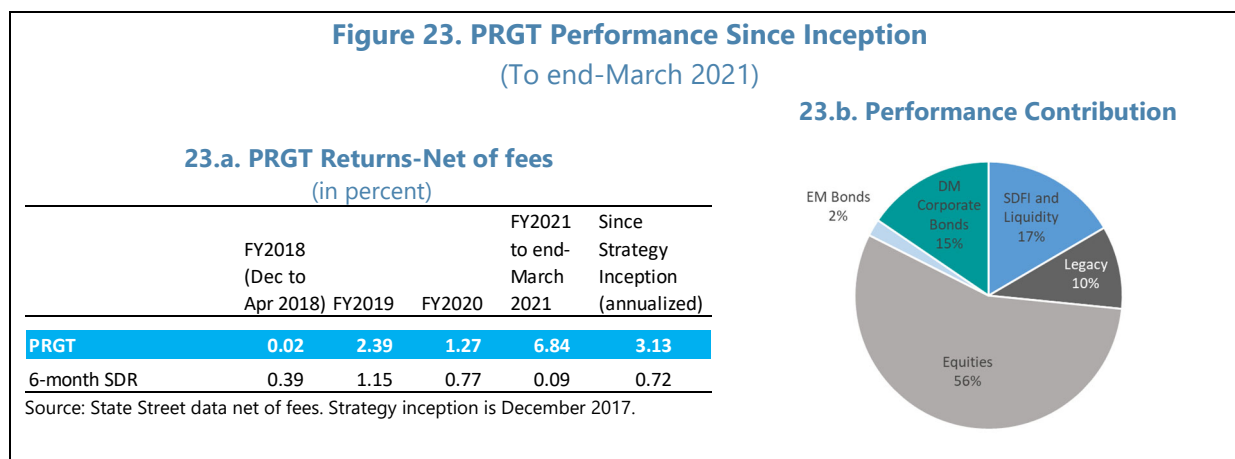
37. In addition to generating income, providing security to lenders and adequate liquidity in case of arrears are also important functions of PRGT assets.¹² A long-term moderately diversified strategy was deemed appropriate to achieve the return target and support these functions without taking on undue risks. This strategy combines elements already implemented for the FI and EA and allocates 45 percent to high-quality short-duration fixed-income and liquidity components with the balance invested in corporate bonds, EM bonds and global equities (Figure 22).



38. The PRGT portfolio has performed well during the transition to its new investment strategy. It has generated an annualized return of 3.13 percent, 241 bp above the SDR interest rate (Figure 23a). By contrast, the previous strategy for PRGT, as proxied by the SDR 1-3 year government bond index, would have earned a return of 1.22 percent during the same period, or 50 bp above the SDR interest rate. Investments in the new asset classes were phased-in over three years, as approved by the Board. During this period the performance of the new asset classes benefited considerably from supportive market conditions, especially for equities (Figure 23b). The phased implementation also mitigated some of the market volatility experienced through the COVID-19 crisis. With the phase-in completed in December 2020, it is too early at this stage to fully evaluate the experience of the new strategy.

¹² These functions are assigned to the PRGT’s Reserve Account which currently constitutes about half of the PRGT’s total assets. Income earned on the Reserve Account will be used for subsidization of lending when subsidy resources are fully exhausted.

Figure 23. PRGT Performance Since Inception
(To end-March 2021)



39. A surge in demand for PRGT lending following the COVID-19 crisis has led to a broader review of PRGT’s financial framework. The Fund has significantly expanded its concessional lending since the onset of the pandemic in early 2020, which has resulted in a doubling of PRGT credit outstanding to date. The ongoing *Review of Concessional Financing and Policies* is considering a range of policy changes and a strategy to secure additional loan and subsidy resources to underpin PRGT self-sustainability. The outcome of these deliberations could have important implications on the purposes of PRGT assets as well as the associated investment strategy objectives.

40. The investment strategy review will take into account any developments from the broader review of PRGT’s financial framework that may impact investment objectives and risk tolerance. At this stage, the analysis below considers the current investment strategy’s risk and return prospects and PRGT’s capacity for tolerating investment risk more generally. However, a further reassessment of the investment objectives and strategy can be undertaken if warranted by forthcoming decisions from the ongoing *Review of Concessional Financing and Policies*.

B. Strategic Considerations

41. PRGT’s investment strategy remains well positioned to achieve its return target. While projected returns of the strategy are lower in absolute terms compared to the last review, the risk premia on PRGT’s expanded assets remains supportive for achieving the target return objective. Updated analysis gives an estimated 76 percent probability that the strategy will generate a long-term margin of at least 90 bp above the SDR interest rate over a 10-year horizon (Figure 24a). When the strategy was developed, it was seen as desirable to have a reasonably high likelihood of achieving the long-run target margin recognizing that a sustained shortfall could undermine PRGT’s ability to maintain the targeted base lending capacity and potentially trigger contingency measures under the three-pillar strategy. The updated analysis indicates that the strategy maintains a reasonably high likelihood of achieving the 90 bp target margin, and on average is expected to surpass it with a mean forecasted return of 167 bp above the SDR interest rate over the longer run

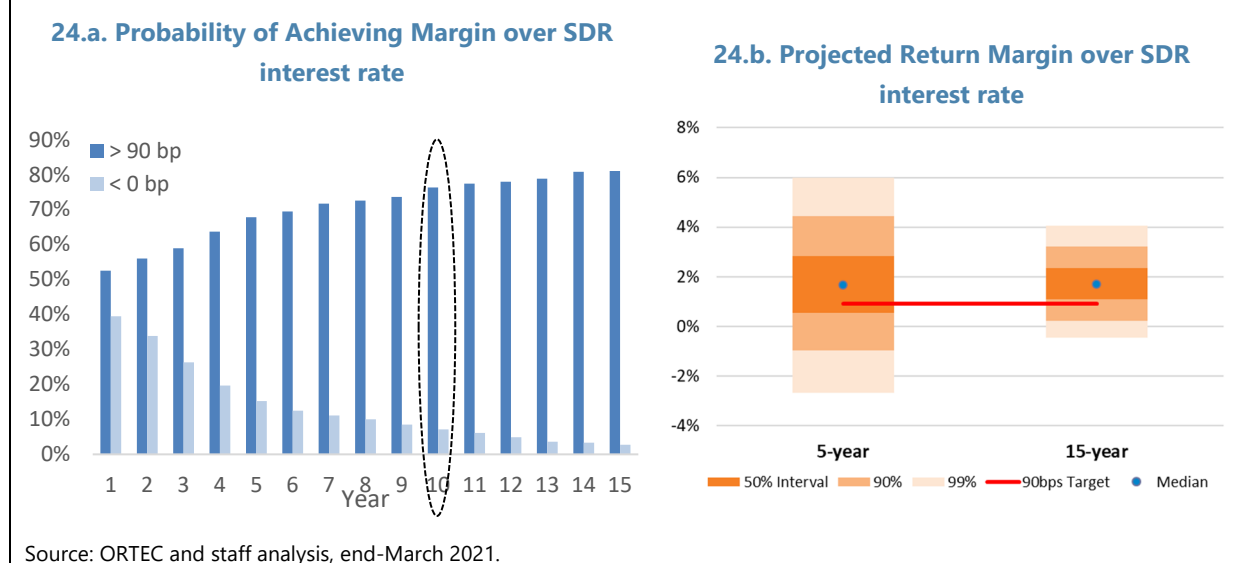
(Figure 24b). The analysis also reflects a minimal impact from updating the SDR interest rate from the 6-month to the 3-month SDR interest rate.¹³

42. Now that PRGT’s moderately diversified asset allocation is fully implemented, the short-term variability in investment returns will be higher than in the past - as was expected when the new strategy was developed. Compared to the previous conservative fixed-income investment strategy, the more diversified strategy with moderate allocations to equities, investment grade corporate bonds, and EM bonds has additional sources of market risk. The core allocation to high quality short-duration fixed-income moderates the volatility of overall investment returns and maintains the portfolio’s reserve-like qualities, providing security to lenders. While there is a relatively high (around 40 percent) probability that the investment return will fall below the SDR interest rate on an annual basis, this probability falls to about 7 percent on average over a ten-year horizon (Figure 24a). The estimated risk profile of the strategy remains at similar levels to 2017. Potential shortfalls relative to the target return over short horizons can be significant but tolerable given the long-term investment horizon and adequate reserves coverage.

43. Potential modifications to the strategy to earn higher returns to support subsidy needs would need to be carefully assessed against the declining reserve coverage at this time. Over the long-term, higher returns could bolster subsidy and reserve account assets. However, increasing the risk profile of the investment strategy to achieve a higher return target would also increase potential portfolio volatility and downside risk. While this could to some extent be tolerated given the long-term investment horizon of PRGT balances, it could undermine the reserve function of the assets at a time when the reserve coverage is declining. The surge in PRGT lending has resulted in a temporary decline in reserves coverage below the historical average of 40 percent, with projections indicating that a further decline to near 20 percent is possible in the coming years. The decline in reserve coverage could be greater if PRGT were to suffer investment losses. As an example, the estimated worst-case losses on the current investment strategy could reduce the reserve coverage ratio by an additional 3 percent over a 10-year horizon.¹⁴ Against this background, staff does not see a case for increasing the risk profile of the PRGT investment strategy at this point.

¹³ In FY2021, current lenders to the PRGT agreed to a uniform remuneration at the 3-month SDR interest rate regardless of the currency of their loans in line with the remuneration of loans to the GRA (see EBS/20/157, October 7, 2020 and EBS/21/30, March 19, 2021).

¹⁴ Based on current share of the reserve account balance in the portfolio and an estimated 10-year cumulative average shortfall over the SDR interest rate in the worst 5 percent of scenarios (5 percent CVaR) of around -7.4 percent.

Figure 24. Simulated Annualized Return and Risk of PRGT Strategy


44. Some strategy refinements could be considered while maintaining the existing risk profile. These refinements would be identical to some of the proposals under consideration for the EA, such as to allow active management for EM equities and technical adjustments to the definition of existing asset classes. While the PRGT strategy has only just been fully implemented, these refinements have the potential to increase the prospects of enhancing returns over time while not materially changing the portfolio’s risk profile. As noted earlier, a broader reassessment of the strategy and further refinements could be considered if warranted by changes to the PRGT self-sustaining financial framework.

Figure 25. Potential Refinements for the PRGT
Investment Objective

- Update SDR interest rate basis—from 6-month to 3-month—in line with uniform remuneration rate agreed by lenders in FY2021

Investment management arrangements

- Allow active management of certain asset classes in line with EA, specifically for EM equities

RESPONSIBLE INVESTING

45. In recent Board discussions, most Executive Directors have highlighted the importance of establishing a more formal commitment to responsible investing. Over the past few years, the investment arrangements established for the IA and TA have incorporated several responsible

investment practices. These arrangements have been guided by the long-term financial objectives for the IA and TA as well as the overarching aim of upholding the IMF's reputation. While supporting the initiatives already undertaken, many Directors have suggested that the future evolution of investment arrangements should be guided by a formal framework for responsible investing endorsed by the Board. In considering this commitment, staff was asked to develop a proposal that provides background on how responsible investing practices are currently applied in the management of the IA and TA, and how these practices might evolve under a formal framework.

46. The accompanying paper, *Responsible Investing for the Investment Account and Trust Assets*, outlines for the Board's guidance a proposal for formalizing this commitment. The commitment could call on the Managing Director to establish a principles-based policy that provides clear but broad guidelines for the ongoing implementation of responsible investing practices. It is envisaged that this policy-based framework would recognize the principles which have guided the existing practices and yet be sufficiently agile to accommodate updates that may be necessary as industry standards evolve. These principles focus on how responsible investing supports the IA's and TA's financial objectives and can help to uphold the Fund's reputation. Specifically, responsible investing—through incorporating ESG considerations in the investment process—should seek to identify portfolio risks and opportunities with the aim of improving long-term income generation and risk mitigation. If Directors are supportive of staff's recommendation, suitable amendments to the Rules and the Guidelines could be presented for approval at the conclusion of the Board's review of the IA and TA, scheduled for early 2022, or earlier if preferred.

CONFLICT OF INTEREST UPDATE

In view of its mandate and the public nature of its resources, the Fund places great importance on the avoidance of actual and perceived conflicts of interest with respect to its investment activities. The Rules and the Guidelines require the adoption of a conflict of interest framework, which was established in 2014 and subsequently reviewed by the Board in March 2018.¹⁵

47. No actual or perceived conflicts have emerged since the Board's last Review. The Fund's conflict framework aims at preventing actual and perceived personal and institutional conflicts and in particular, the misuse of confidential information obtained or generated in the context of the Fund's other core activities. The framework relies on the separation of responsibilities between the Board, the Managing Director, staff, and external managers; comprehensive policies and procedures; and management oversight ("first line of defense" safeguards). These key elements had been deemed effective by an external counsel as part of the 2018 Review.

¹⁵ The Executive Board is expected to review the Fund's relevant conflict of interest policies every five years, see the *Rules and Regulations for the Investment Account*, August 2019, ¶15 and the *Guidelines for Investing PRG, PRG-HIPC and CCR Trust Assets*, September 2017, ¶11.

48. Since the 2018 Review, the Fund’s conflict framework was strengthened in two areas to enhance its “second line of defense”, as recommended by external counsel.¹⁶ First, the procedures of the IOC were enhanced in 2019 by specific protocols, including the formalization of conflicts procedures for IOC meetings and for conflict of interest avoidance procedures for Investment Unit staff and IOC members. In addition, after extensive consultations by ORM of staff in FIN, LEG, ETO, OBP, and OIA, in 2020 management approved enhancements to the role of the Designated Officer (DO) such as: training on institutional conflicts for the DO and staff; monitoring of best practices for mitigating institutional conflicts; and testing and monitoring information barriers around Investment Unit staff. In addition, staff considered the merits of further pro-active “second line of defense” monitoring of potential conflicts by the DO as an additional measure which had been raised for consideration by the external counsel.¹⁷ However, in light of the heightened demands on Fund resources to respond to the COVID-19 crisis, this additional work was postponed and will be revisited in this current review and as part of the broader assessment of compliance activities at the Fund.

49. Given the comprehensive and recently enhanced conflict framework, this review will include a benchmarking study to reflect on the framework’s appropriateness. In addition to considering its experience to date, staff’s analysis will include an outreach to peer institutions on conflict of interest; staff will inform the Board of notable findings, including opportunities for improving the framework. Staff will consult with external counsel if issues are identified which warrant independent analysis.

50. Further, staff’s initial view is that the potential strategy refinements described here would not result in actual or perceived conflicts of interest that could not be appropriately mitigated. While some aspects of the proposed refinements had been identified as calling for greater scrutiny from a conflicts perspective in 2008 before the EA was established, staff views that they can be implemented with effective safeguards. For example, investments in certain specialized asset classes, including securities in developing and relatively illiquid markets such as in some emerging markets, had been identified as potentially having heightened risk of perception of conflict.¹⁸ However, staff views that active management of EM equity can be structured to mitigate the risk of actual or perceived conflicts of interest by employing strong safeguards. These safeguards may include the use of external asset managers with broad mandates to avoid the

¹⁶ The external counsel noted the strength and effectiveness of existing controls and safeguards, which helped keep the risk of conflicts of interest low. But these controls operated at the level of the “first line of defense” and no mechanism were in place to validate them at the second line.

¹⁷ As was noted in the 2018 Review, whereas the DO’s focus is on personal conflicts of interest, the Fund’s main risks of conflicts of interest in the investment area are institutional, i.e., actual or perceived conflicts of interest the Fund would face as a result of its investment activities, on the one hand, and its lending, surveillance, and capacity development activities, on the other. The external counsel recommended to consider reinforcing the role of the DO for which it had identified a number of options. It also recommended that the scope of the DO’s mandate be expanded to include a more proactive role in the monitoring and implementation of the conflict of interest framework and of evolving best practices of similarly situated institutions.

¹⁸ See *Developing a New Income Model for the Fund—Additional Considerations—Supplementary Material*, SM/08/48 Supplement 1, 2/8/2008, at p.13.

perception that the Fund is directing specific investments. Staff will assess these proposed refinements within the conflict of interest framework to determine whether improvements to the framework are warranted so that it continues to promote the goal of appropriately mitigating actual and perceived conflicts of interest, in light of the refinements discussed here and the overall investment activities of the IA and TA.

ISSUES FOR DISCUSSION

51. This paper provides the basis for an initial discussion of the investment strategy review for the IA and TA. Based on Directors' guidance staff will undertake further work and revert with specific proposals for refinements to the investment strategies for the IA and TA.

Directors may wish to comment on the following issues:

- i. Do Directors agree that the existing investment approaches for the IA and TA have generally achieved their objectives so far and that the review should focus mainly on some specific steps to further strengthen portfolio resilience and return prospects in a challenging market environment?

EA

- ii. What are Directors' views on increasing the EA's risk profile moderately in conjunction with incrementally lowering the long-term return target?
- iii. Do Directors support potential refinements for the EA's SAA and strategy presented in Figure 11?

FI

- iv. What are Directors' views on the further evolution of the FI strategy to improve potential returns through refinements presented in Figure 21?

PRGT

- v. Do Directors support staff's assessment of the current limited tolerance to increase risk for the PRGT strategy in light of impending discussions and a declining reserve ratio?
- vi. What are Directors' views on the refinements proposed to be further analyzed for the PRGT presented in Figure 25?

Responsible Investing

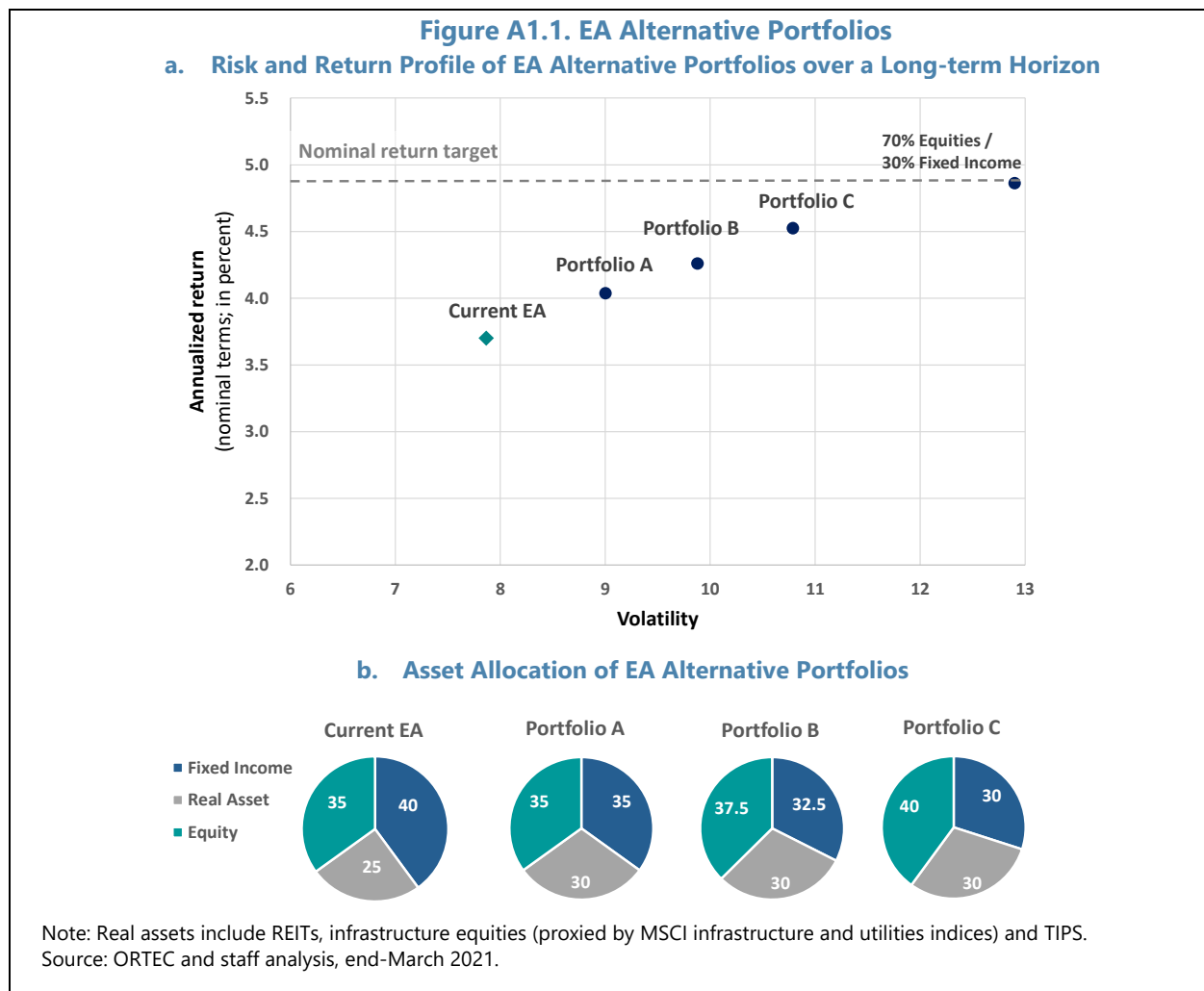
- vii. Do Directors support staff's proposal for formalizing a commitment to responsible investing for the IA and TA as presented in the supplement paper?

Conflicts of Interest

- viii. Do Directors support staff's approach in reviewing the conflict of interest framework?

Annex I. Analysis of EA Alternative Portfolios

1. Staff conducted preliminary analysis on the risk and return profile of several practical alternative portfolios for the EA in comparison with its current asset allocation (Figure A1.1.a and Table A1). Alternative portfolios A-C represent increasing incremental shifts from government bonds and US TIPS to other real assets and equities, while maintaining diversified and broadly balanced allocations across fixed-income, real assets, and equities (Figure A1.1.b). As expected, the portfolios yield incrementally higher expected return of around 30-80 bp at the expense of moderately higher annual volatility. However, projected average returns for these portfolios are below the EA’s 3 percent real return target—achieving this target would still require an allocation to equities of around 70 percent.



2. The probability of achieving real returns of between 2-3 percent over a long-term horizon improves incrementally but meaningfully with the alternative portfolios (Figure A1.2.a). There is a reasonable chance that the current EA strategy will achieve a real return

target of 1-1.5 percent while preserving its real value over the long-term. However, the probability that the strategy will achieve the 3 percent target is only around 27 percent. With the alternative portfolios, the range of outcomes is slightly wider—they provide more upside potential over the long-term while maintaining a comparable magnitude of downside risks (Figure A1.2.b). A modest reallocation from fixed-income to real assets together with a small increase in EM equities along the lines of *Portfolio B* would allow for a reasonable, roughly 50 percent, chance of achieving a real return target of 2-2.5 percent (Figures 2a and 2b). While the risks are noticeably higher over short-term horizons, as illustrated by the more negative VaR and CVaR (Figure A1.2.c), such mark-to-market volatility can be tolerated given the EA’s long-term investment horizon.



3. Staff analysis also shows slightly better performance of alternative portfolios under some stress scenarios. The baseline assumptions for portfolio simulations are based on lowered long-term expectations for growth, inflation, interest rates, and asset returns and increased

uncertainty around the outlook. Figure A1.3 shows baseline return expectations and uncertainty, as illustrated by their interquartile range, for selected EA asset classes over 5-year and 15-year horizons. Stress scenarios were filtered from the simulations, specifically: i) *deflation scenarios* as characterized by low inflation and yields, as well as low return on equities over an extended horizon of 15 years; and ii) *stagflation scenarios* as characterized by high realized inflation, moderate yields, and low return on equities over a medium-term horizon of 5 years. Based on the expected average real returns illustrated in Figure A1.4, *Portfolio B* would seem to offer meaningful improvements under stagflation type of scenarios over both the medium and long-term horizons.

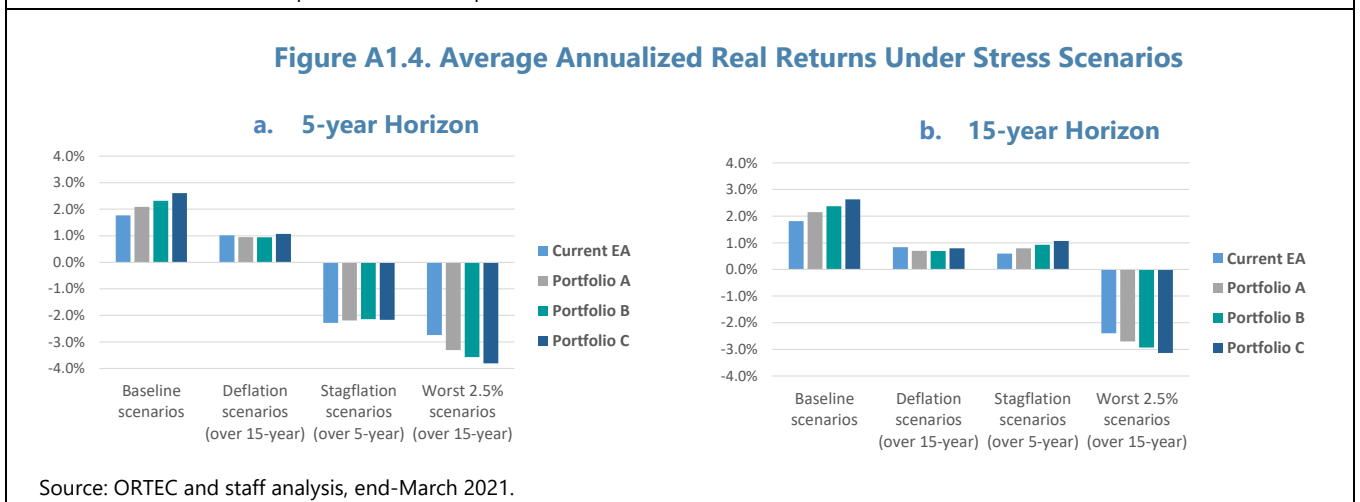
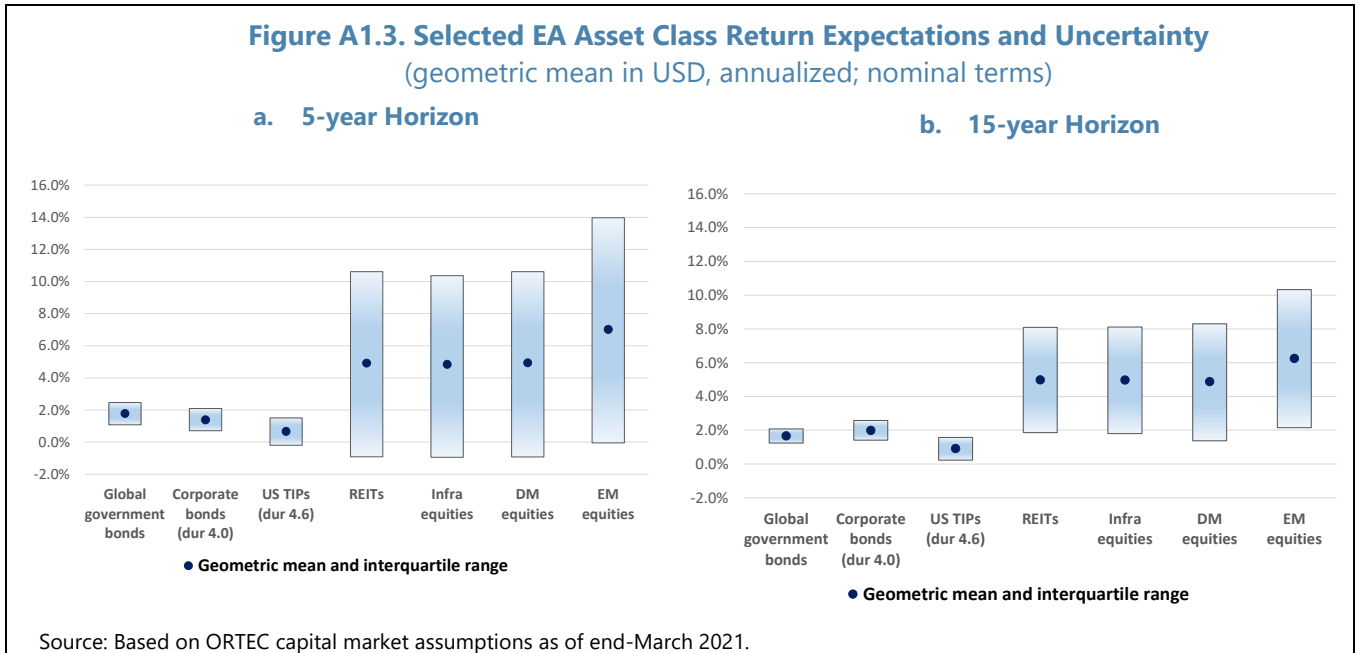


Table A1. Risk and Return Statistics for the Current EA and Alternative Portfolios

Real Portfolio Return	5-year horizon					15-year horizon				
	Current EA	Portfolio A	Portfolio B	Portfolio C	70/30 Equities/ Fixed Income	Current EA	Portfolio A	Portfolio B	Portfolio C	70/30 Equities/ Fixed Income
Expected real return (Annualized)	1.8%	2.1%	2.3%	2.6%	3.1%	1.8%	2.1%	2.4%	2.6%	3.0%
Real return (ann.) - 99.5th Percentile	10.4%	12.1%	13.2%	14.6%	18.1%	6.7%	7.5%	8.2%	9.0%	11.1%
95th Percentile	7.1%	8.3%	9.1%	10.1%	12.3%	5.0%	5.7%	6.2%	6.8%	8.4%
75th Percentile	3.9%	4.6%	5.1%	5.6%	6.7%	3.1%	3.6%	4.0%	4.4%	5.3%
Median	1.6%	2.0%	2.2%	2.5%	3.0%	1.7%	2.1%	2.3%	2.6%	2.8%
25th Percentile	-0.4%	-0.4%	-0.5%	-0.4%	-0.8%	0.5%	0.7%	0.8%	0.9%	0.7%
5th Percentile	-3.3%	-3.8%	-4.2%	-4.4%	-5.8%	-1.1%	-1.3%	-1.3%	-1.4%	-2.2%
0.5th Percentile	-6.3%	-7.0%	-7.6%	-8.4%	-10.7%	-2.9%	-3.2%	-3.6%	-3.8%	-5.3%
5% VaR	-3.3%	-3.8%	-4.2%	-4.4%	-5.8%	-1.1%	-1.3%	-1.3%	-1.4%	-2.2%
5% CVaR	-4.7%	-5.4%	-5.9%	-6.3%	-8.1%	-1.9%	-2.1%	-2.3%	-2.4%	-3.5%
Probability of Outperforming Real Return Target										
Probability Real Return > 3 percent	35.4%	39.9%	42.3%	45.6%	49.8%	27.1%	34.2%	39.0%	42.9%	47.6%
Probability Real Return > 2.5 percent	40.5%	44.1%	47.0%	49.8%	53.4%	35.6%	42.1%	46.4%	50.9%	54.9%
Probability Real Return > 2 percent	46.0%	49.7%	51.9%	54.4%	56.8%	45.0%	51.5%	54.8%	58.1%	60.6%
Probability Real Return > 1.5 percent	52.2%	55.5%	57.4%	59.1%	60.6%	54.7%	60.4%	63.3%	66.2%	66.7%
Probability Real Return > 1 percent	58.2%	61.0%	62.2%	63.2%	63.6%	65.4%	69.8%	71.4%	73.7%	71.8%
Probability Real Return > 0 percent	70.9%	70.7%	71.0%	71.6%	70.3%	83.5%	84.4%	84.7%	85.2%	82.5%
Asset Ratio										
Asset Ratio Real - Mean	110.1%	112.1%	113.7%	115.6%	119.3%	134.8%	142.9%	148.8%	156.0%	170.2%
Asset Ratio Nominal - Mean	120.5%	122.7%	124.4%	126.5%	130.6%	178.6%	189.7%	197.6%	207.1%	225.8%
Probability of Asset Ratio Real < 100%	29.2%	29.3%	29.0%	28.5%	29.7%	16.5%	15.7%	15.4%	14.9%	17.6%
Probability of Asset Ratio Nominal < 100%	12.9%	14.8%	16.1%	16.6%	19.4%	2.3%	3.1%	3.7%	3.9%	6.8%

Source: ORTEC and staff analysis, end-March 2021. Asset ratio reflects the projected value of assets at the end of the period as a percentage of the initial value.