1 September 2023

Mr B Samild
Chief Investment Officer
Future Fund Board of Guardians
Level 14, 447 Collins Street
MELBOURNE VIC 3000
Email: [redacted]

Dear Ben,

Subject: **Future Fund Board of Guardians ("FFBG")**
Additional risk and return modelling as at 30 June 2023

In the following letter, we present additional risk and return modelling of the Future Fund (FF) portfolio as at 30 June 2023 in order to examine the potential value-add (or detraction) to the Government provided by maintaining the FF compared to the alternative of liquidating the FF today to pay down Government debt.

Methodology

In order to assess the relative value-add of maintaining the FF versus liquidating the FF to pay down Government debt, we have defined the following two scenarios to form a basis for comparison:

- *Scenario A*: The FF assets are sold, with the proceeds (assumed to be the market value of the FF less transaction costs and haircuts to NAV for distressed selling of illiquid assets) used to buy the same market value of Australian Government Securities (AGS). This scenario effectively forms a "zero baseline" as there is no need to refinance or pay coupons on the debt retired.

- *Scenario B*: The FF continues in its current form, existing Government debt is maintained and new debt continues to be issued to pay for coupon payments on existing debt. Under this scenario, the future "value-added" from doing this can be determined as the accumulated future value of the FF less the market value of the debt that would have been retired as well as the market value of new debt issued to fund coupon payments.

We have examined the evolution of "Scenario B" over a 10-year projection horizon, by simulating future values of key variables (e.g. the value of FF assets, value of current debt, value of future debt accrued to pay coupons) to illustrate the potential range of "value added" outcomes by maintaining the FF.

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Summary of key assumptions

Assumed sale of Future Fund

A decision to liquidate the FF in the short-term would require a significant amount of assets to be placed on markets for sale at that point in time. For this purpose, we have assumed a 6-month liquidation period, which is likely a sufficient window over which to avoid material losses in realised value on the sale of liquid assets. However, such a liquidation period is likely to result in a material 'hair-cut' to the realised value of the FF's illiquid assets as these are likely to be sold at a discount to net asset value (NAV) to attract buyers for a timely sale.

To reflect this, we have formed an assessment of the likely discount that would be required to sell the FF's illiquid assets (including private equity, property, infrastructure, timberland and debt securities) under a 6-month liquidation period. This equates to a discount of around 5.0% to total FF net assets as at 30 June 2023.

Treatment of FF running costs, investment management fees

We have made an allowance of 25bps for the ongoing running costs of the FF based on information contained in the most recent FF annual report. Investment management fees have also been allowed for within our return estimates.

Treatment of FF withdrawals

For simplicity, we have assumed that no additional withdrawals are paid from the FF over the 10-year projection period.

Treatment of coupon payments

The coupon payments on existing Government debt are assumed to be funded by issuing new debt at the future market rate. This new debt is then accrued together with the existing Government debt pool.

Yield and return assumptions

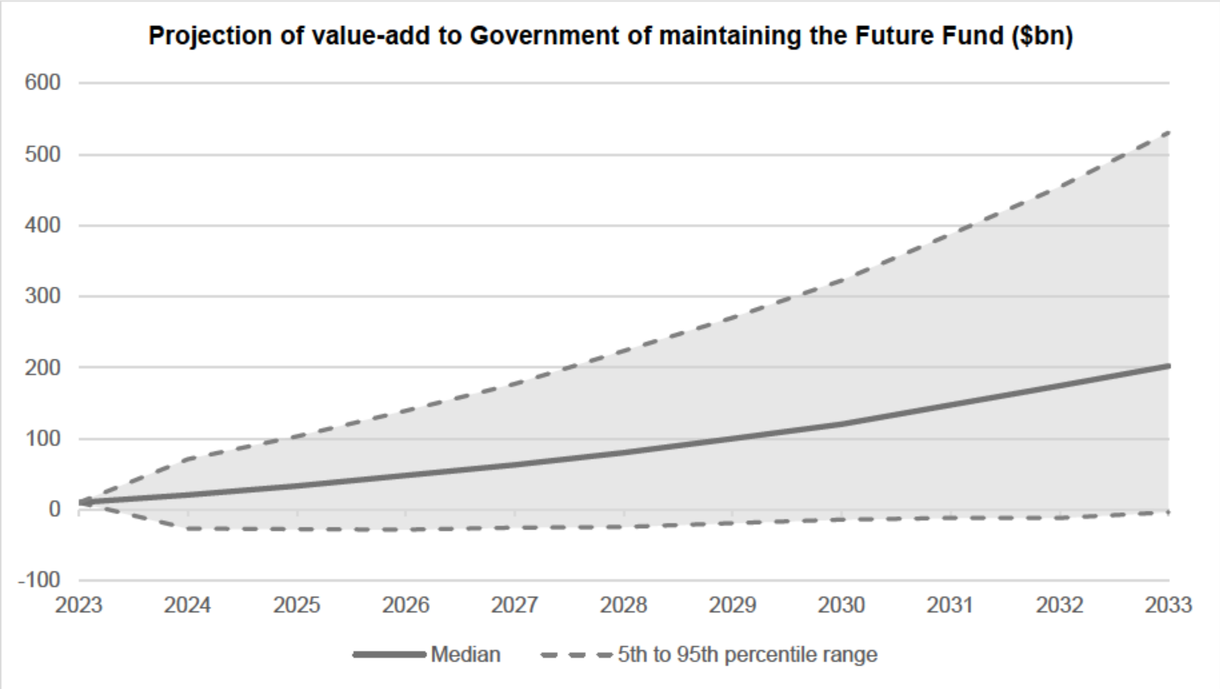
We have used our standard economic and asset class return assumptions from WTW's proprietary global asset model to conduct this analysis. Under our model, the central path for future Australian Government bond yields has been assumed to be broadly in line with current market expectations. Over the projection period, the median annualised return on the FF's assets (before running costs, after investment management fees) is estimated to be 9.4% p.a., whilst the median future cost of debt under scenario B is 4.1% p.a. over the next 10 years.

FF asset allocation

We have assumed that the FF's current asset allocation as at 30 June 2023 is maintained for the duration of the projection period.

Results

We illustrate the results of our modelling in the graphic below which shows both the expected (median) outcomes and plausible range (represented by 5th and 95th percentile outcomes) for value-add from maintaining the FF over the 10-year projection period.



We make the following observations based on the results of our analysis:

- The expected value-add of retaining the FF relative to the alternative scenario of liquidating the FF's assets and retiring the equivalent amount of government debt increases gradually over the projection period as the FF's assets are expected to outperform the cost of government debt on average in any given year. The expected (median) value-add is around $200bn at the end of the 10-year projection horizon.

- Asset class returns and market rates are variable and subject to considerable uncertainty and so it is important to consider the likely range of plausible outcomes for value-add. Our analysis suggests that there is only around a 1 in 20 likelihood that maintaining the FF will not deliver any material benefit (or cost) if maintained over the next 10 years.

Conclusion

Our analysis suggests that under a scenario whereby the Future Fund is liquidated to pay down Government debt, this would come at a median cost (i.e. lost value-add) of around $200bn over a decade with plausible outcomes around this ranging from approximately break-even at the 5th percentile, to a cost up to $500billion at the 95th percentile on the assumptions detailed above.

Limitations of analysis and disclaimers

This analysis is illustrative only. To undertake this modelling, we have necessarily simplified a complex problem (i.e. government funding/debt) into two simple scenarios to illustrate the expected benefit of maintaining the FF. In reality, there exist other potential variables that have not been considered and therefore the analysis is not exhaustive and should not be considered as investment advice.

The decision to liquidate the FF to pay down existing Government debt (or to put it to another alternative use) rests solely with the Federal Government and this paper is not intended to comment on the efficacy of either maintaining or liquidating the FF in the context of the Federal Government's mandate. In addition, we have not commented on (or considered) how any value-add from maintaining the FF (or otherwise) would be treated for accounting purposes in the Federal Budget.

This analysis is reliant on the assumptions described in this paper and referred to in our full disclaimer below. Different conclusions could be drawn from different assumptions, and therefore these should be carefully considered when assessing this illustration. Of particular significance are the assumptions used for investment returns and yields, which the analysis is highly reliant on. We note that these assumptions are set with a medium to long-term horizon in mind and therefore are not meant to be reflective of short-term investment market movements. In addition to this, whilst we have attempted to consistently account for variation in expected yields and asset class returns within our asset model, it is not possible to account for all future states of the world and therefore real-world outcomes could differ significantly.

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Please do not hesitate to contact us if you have any queries.

Yours sincerely

Nick Barrett
Director, Head of Investment Strategy, Australia

Jeff Chee
Senior Director,Global Head of Portfolio Strategy

Confidentiality and Disclaimer

Willis Towers Watson has prepared this report for the Future Fund Board of Guardians ("you") to assist you with any decisions you may take regarding your investment arrangements, under the terms of our agreement with you.

The analysis in this paper is based on a range of assumptions which influence the output and our recommendations. The assumptions have been derived by Willis Towers Watson through a blend of economic theory, historical analysis and the views of investment managers. The assumptions inevitably contain an element of subjective judgement. The assumptions included in the analysis cover the likely future behaviour of the investment markets. These include expected future returns from different asset classes, the likely volatility of those returns, and their inter-relationship. The key component of an asset allocation study is the way in which the assets are modelled. The structure of the Willis Towers Watson asset model is based on historical analysis of investment returns, although Willis Towers Watson has incorporated its subjective judgement to complement the information provided by historical returns. The model is designed to illustrate the future range of returns stemming from different asset classes and their inter-relationship. In particular it should be noted that our timeframe in establishing our asset model and the assumptions used in this study is long-term, and as such it is not intended to be precisely reflective of the likely course of the investment markets in the short-term. Furthermore, our opinions and return forecasts are not intended to imply, nor should be interpreted as conveying, any form of guarantee or assurance by Willis Towers Watson, either to the recipient or any third party, of the future performance of the asset classes in question, either favourable or unfavourable. Past performance should not be taken as representing any particular guide to future performance.

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