Democratic Republic of Timor-Leste

VIII Constitutional Government

Explanatory statement

Segmentation of the Petroleum Fund

1. Introduction

The Petroleum Fund was established in 2005 in order to contribute to the wise management of the petroleum resources and sound fiscal policy. The Petroleum Fund Law (Law N.º 9/2005 of 3 August, amended by Law N.º 12/2011, of 28 September) regulates the operational management and the investment policy of the Petroleum Fund, including the collection and management of petroleum receipts, transfers to the State Budget, and provisions for the Government's accountability and oversight responsibility.

According to the Petroleum Fund Law, the Government is responsible for the overall management of the Petroleum Fund. The Minister of Finance, as the Government's representative, shall establish the investment policy for the Petroleum Fund after receiving advice from the Investment Advisory Board ("IAB").[1]

The Minister has accepted advice from the IAB that the risk in the Petroleum Fund's investments needs to be reduced to account for expected net outflows in the coming years and the consequent decline in the Petroleum Fund's value. This will be implemented by creating a Liquidity Portfolio of highly liquid, low risk securities to finance the expected withdrawals over the next three years. The remainder of the Fund will be invested in a Growth Portfolio that follows the current equity and fixed interest weights of 35% and 65%. Segmenting the Fund into the two portfolios is consistent with the objectives and rules set out in the Petroleum Fund Law. As well as reducing financial risk, segmentation improves the Fund's governance by providing clear objectives for each portfolio and encourages medium-term fiscal planning.

The Minister of Finance's proposal to segment the Fund was approved by the Council of Ministers on May 19 2021. Article 14.5 of the Petroleum Fund requires the Minister of Finance, as the

[1] Article 11.1 and Article 11.2 of the Petroleum Fund Law.

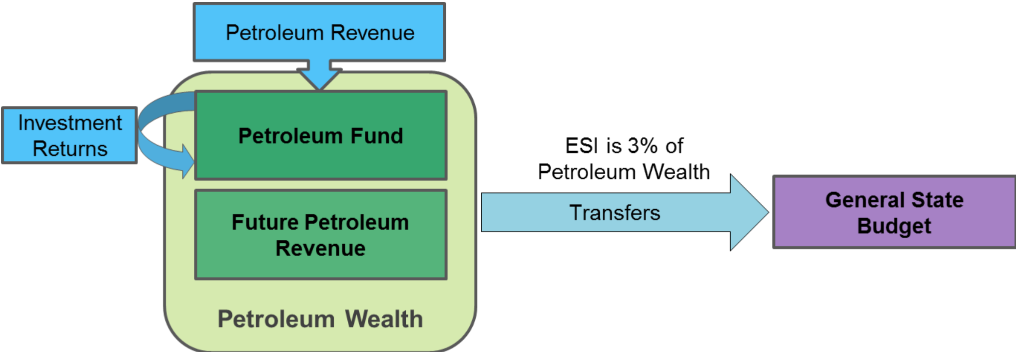
Executive of the Petroleum Fund, to inform the Parliament of the change in the principal asset allocation prior to implementation. The following sections of this note sets out the rationale of why the change is needed. The note is to be read in conjunction with the advice from the IAB to the Minister of Finance, which are attached.

The Minister of Finance plans to instruct the BCTL, the Petroleum Fund's operational manager, to implement this change on 1 July 2021. The Minister welcomes the opportunity to brief Parliament beforehand.

2. The Petroleum Fund's original fiscal framework

The Petroleum Fund, like many sovereign wealth funds, was modelled on the permanent income framework. When the government's withdrawals are limited to the expected real return from its investments, the real value of the Fund will be preserved in perpetuity.[2] This allows an even withdrawal profile to benefit current and future generations in perpetuity. In our case, an investment strategy was developed to earn a real return to offset the 3% ESI. In 2011 and 2012, when the Petroleum Fund Law was modified and the investment strategy determined, a 40% equity allocation was expected to earn a 3% real return over the long-term. With withdrawals offset by investment returns, the resulting very long-term horizon meant that the Fund was in a position to withstand the short-term volatility inherent in equity returns.

Figure 1: The original fiscal framework: Real returns = withdrawals



3. Three challenges to the fiscal framework and the Fund's investment strategy

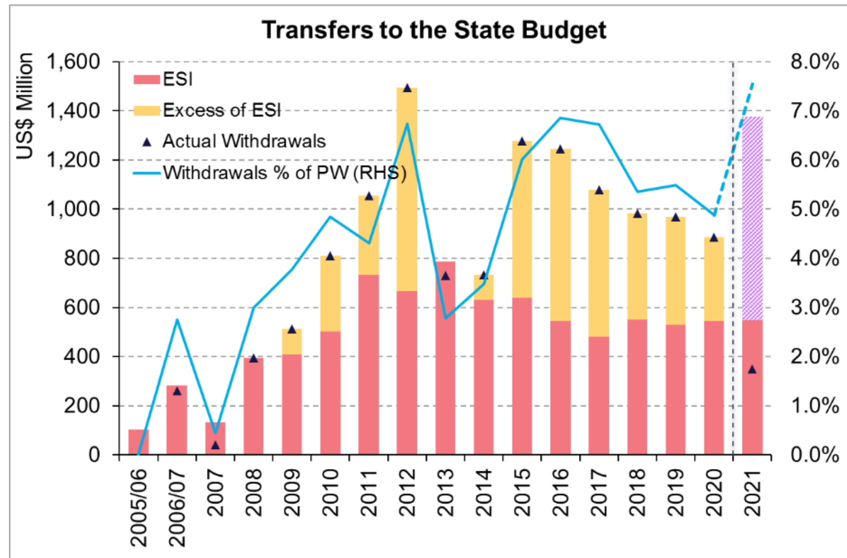
There are three challenges to the Fund's sustainability and the assumed long-term horizon behind the Fund's investment strategy. These were identified in the IAB's advice in 2016, 2018 and 2019.[3]

[2] The real return is the return after adjusting for the rate of inflation.

[3] IAB letters to the Minister of Finance: "Review of Asset Allocation", 23 September 2016; "Review of Asset Allocation", 11 May 2018; "Review of asset allocation accounting for fiscal policy", 21 November 2019.

i) The ESI as the fiscal guideline is not being followed during the front-loading period. Withdrawals have exceeded the 3% ESI rule every year since 2009, averaging about 5% of Petroleum Wealth and 8% of the Fund's balance. The 2021 Budget Book projects that this will continue.

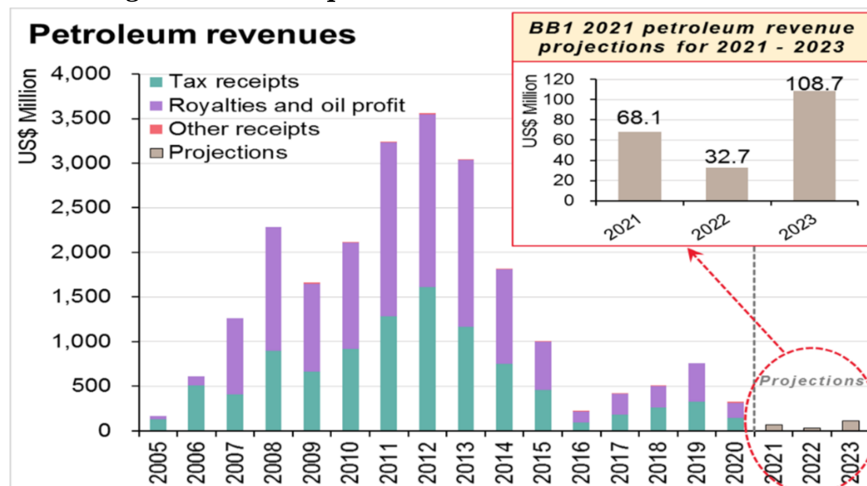
Figure 2: Withdrawals are well in excess of the ESI



Since the inception of the Fund in August 2005 until April 2021, a total of $12,820.9 million has been transferred to finance the State Budget. The total of withdrawals until the end of 2020 is about $4,814.4 million above the ESI for the corresponding period.

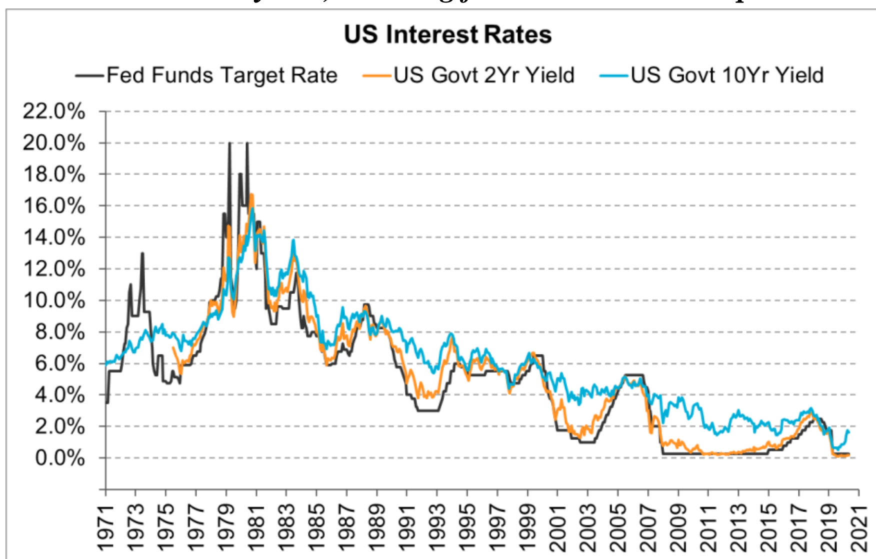
ii) High petroleum revenue allowed the Petroleum Fund to grow in previous years by filling the gap between withdrawals and actual investment returns. Petroleum receipts have totalled US$ 22,970.2 million since inception, as at April 2021. However, the reserves in Bayu-Undan have declined and future petroleum revenue will be relatively low, even if production is extended. With low petroleum revenue over the coming years, withdrawals will be financed by selling the Petroleum Fund's investments. This will continue at least until inflows are received from the Greater Sunrise or other significant prospective fields.

Figure 3: Future petroleum revenues are low



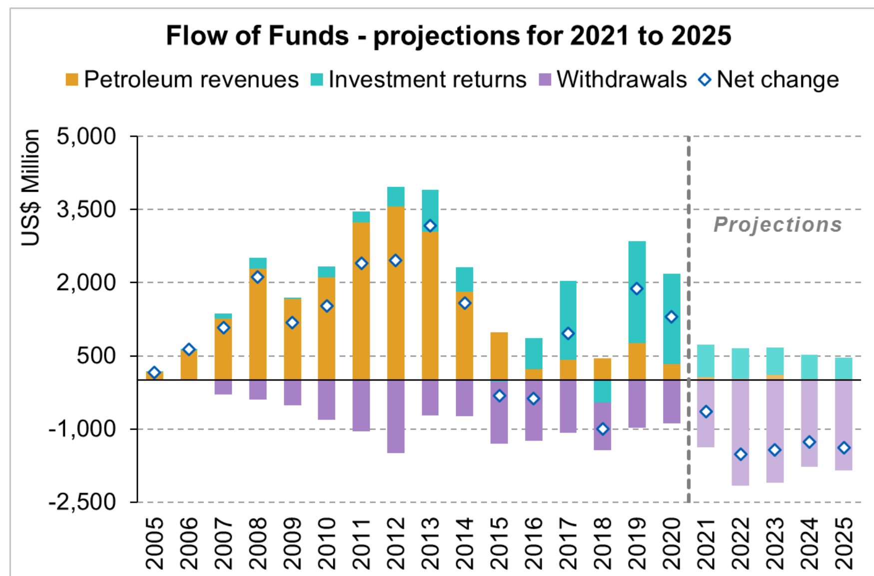
iii) The annual nominal investment return since inception of the Fund is 4.9%, about 2.9% in real terms after deducting US inflation. As of March 2021, the investment return has added US$ 8,836.9 million to the Fund. While the Fund's historical return has been close to the 3% real return target, future investment returns are expected to be lower because of very low interest rates. The investment consulting firm Willis Towers Watson projects that the return for our portfolio with 35% invested in equities will equal about 2.5% per annum over the next 10 years. Assuming inflation of 2%, the true ESI is then only 0.5% or $95 million for a $19 billion Fund.

Figure 4: Interest rates are very low, meaning future returns are expected to be low



The Petroleum Fund's balance is projected to decline as a result of the expected net cash outflows and lower investment returns. The 2021 Budget Book projected that the Fund will be exhausted by 2033. The Fund is expected to fall in value at least until there are inflows from Greater Sunrise. The balance was able to grow in both 2019 and 2020 because equity market performance was well above current expectations. We should not expect that good fortune to continue. Equities also involve exposure to the downside, which is the risk that we are now seeking to manage.

Figure 5: Withdrawals are projected to exceed investment returns and oil revenue causing the Fund's balance to decline



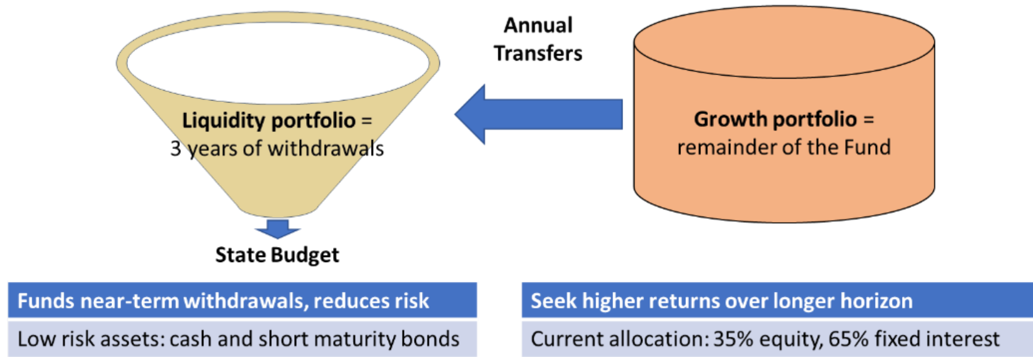
4. Segmenting the Petroleum Fund into a Liquidity and Growth portfolio

The sequence of returns becomes important when there are cash outflows. If there was a severe equity downturn like that experienced during the Global Financial Crisis, there would not be time for all of the equity investments to recover as withdrawals need to be funded. Equities need a sufficiently long holding period to help ensure that the higher return is realized. The IAB's advice in August 2020 explained that it is critically important to manage investment risk during this decumulation phase. Withdrawals over the next few years are a known liability with a relatively short horizon and best practice involves holding that amount in a separate portfolio invested in highly liquid, low-risk securities. The IAB engaged an independent investment consulting firm to provide additional support before providing its final recommendation to the Minister in November 2020.

The Ministry of Finance has adopted the advice to divide the Fund into two portfolios:

1) A Liquidity portfolio to finance the projected withdrawals over the next three years. The low-risk portfolio will be invested in US Dollar cash and short-term US Government Treasury bonds.
2) The remainder of the Fund will be invested in a Growth portfolio that will be invested according to the current fixed interest and equity allocation of 65%/35%. The aim of the Growth portfolio is to benefit from equity's higher expected return but it is therefore higher risk and more volatile.

Figure 6: Segmenting the Petroleum Fund into two portfolios



Projections of withdrawals over the next three years are needed. The Budget Book's projection for 2021 is used, after deducting the $350m of withdrawals already made. The Ministry of Finance assumes that withdrawals in 2022 and 2023 will each equal $1 billion, resulting in total withdrawals of $3.0 billion over the three years.[4] While these projections should be as accurate as possible, financing actual withdrawals of slightly more or slightly less than three years will still meet the objective.

The investment risk in the Petroleum Fund is reduced because the Liquidity portfolio does not hold equities. The equity weight in the total Fund is reduced from its current weight of 35% to 29%.[5] As a result, the volatility in the Fund's balance will reduce and some protection is provided if equity markets fall sharply. As well as reducing investment risk, segmentation provides the benefit of clear investment objectives for each portfolio, which helps in setting the investment strategy and communicating performance. Policymakers and other stakeholders can be confident that the next three years of withdrawals are covered by safe assets and therefore be less concerned about fluctuations in the market value of the Growth portfolio. Another important benefit of segmentation is that it re-establishes the link between fiscal policy and the Fund's investment strategy, which broke down when the ESI guideline was abandoned. Holding the next three years of withdrawals in safe, lower return assets encourages efficient planning and execution of public sector budgets, as provided for in the Preamble of the Petroleum Fund Law.

Annual transfers will be made at the beginning of each year from the Growth portfolio to the Liquidity portfolio as the latter depletes when withdrawals are made. The size of the transfer and the associated sale of investments will vary depending on the annual return of the Growth portfolio. When the return is high, more will be sold; when the return is low, less will be sold. This counter-cyclical rule is designed to limit the sale of equities after a fall. As transfers are made each year,

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[4] The IAB's advice on 13 November 2020 used the projected withdrawals for 2021-2023 of $5.7 billion from the 2021 Budget Book. The Ministry of Finance expects the actual withdrawals in 2022 and 2023 to be lower than what was projected in the Budget Book.

[5] The equity allocation is 35% of the total value of financial market investments, that is, the value of the Fund excluding the private debt instrument.

the equity allocation in the total Fund will gradually decline along with the size of the Growth portfolio.

Lastly, other frameworks and parameters were carefully considered by the IAB and the Ministry of Finance. This included a larger Liquidity portfolio, although it was decided that three years of withdrawals strikes an appropriate balance between reducing risk through the Liquidity portfolio and being able to participate in the upside via the Growth portfolio. The Ministry of Finance also believes that the new framework will encourage policymakers to consider fiscal and Petroleum Fund sustainability. In contrast, introducing a fiscal rule that requires withdrawals to return to the ESI when the Fund falls to a certain value, say $10 billion, seems likely to lead to further delay in dealing with the underlying issue. In addition, once the floor is reached, the resulting fiscal cliff required to return to the ESI is unlikely to be viable when there is still money in the Petroleum Fund.

The new structure is robust and adapts to new information about withdrawals. The Ministry of Finance will revisit the framework when the amount and timing of the inflows from the Greater Sunrise project become clearer.

5. Timeline for implementing segmentation

After presenting the change to the Parliament, the Minister of Finance will instruct the BCTL to implement segmentation on 1 July 2021. It is important that segmentation be implemented without undue delay in order to manage the risk in the total Fund.

Ministry of Finance, May 20th, 2021

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