

# TIMOR\_LESTE PETROLEUM FUND

ANNUAL REPORT 2020



Petroleum Fund Policy and Management Office
MINISTRY OF FINANCE
DEMOCRATIC REPUBLIC OF TIMOR-LESTE





# REPÚBLICA DEMOCRÁTICA DE TIMOR-LESTE MINISTÉRIO DAS FINANÇAS



# TIMOR-LESTE PETROLEUM FUND

# ANNUAL REPORT 2020

March 2022

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# **List of Acronyms**

ANPM Autoridade Nacional do Petróleo e Minerais [National Authority for Petroleum and Minerals]

APT Additional Profits Tax

AU Australia

BCTL Banco Central de Timor-Leste [Central Bank of Timor-Leste]

BIS Bank for International Settlements

BOE Barrels of Oil Equivalent

Bp/bps Basis points

BUIW Bayu-Undan infill well program

CCFP/PFCC Conselho Consultivo do Fundo Petrolífero [Petroleum Fund Consultative Council]

CMATS Certain Maritime Arrangement in the Timor Sea

COVID-19 Coronavirus disease
DM Developed Market
ECB European Central Bank

EITI Extractive Industry Transparency Initiative

ESI Estimated Sustainable Income
FMI Financial Market Investments
FTP First Tranche Petroleum
GDP Gross Domestic Product

IAB Investment Advisory Board

IFSWF International Forum of Sovereign Wealth Funds

JPDA Joint Petroleum Development Area

LNG Liquefied natural gas

MSCI Morgan Stanley Capital International
OMA Operational Management Agreement
PF Petroleum Fund of Timor-Leste

PFPMO Petroleum Fund Policy and Management Office, Ministry of Finance

PSC Production Sharing Contract

SPDI Special Private Debt Instrument for petroleum operations (Timor Gap Loan)

SSgA State Street Global Advisors
TLEA Timor-Leste Exclusive Area

UK United Kingdom

US/USA United States of America

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# **Message from Rui Augusto Gomes Minister of Finance**



The Petroleum Fund recorded another year of strong investment performance after recovering from the sharp fall that accompanied the onset of the Covid-19 pandemic in the first quarter. The Fund's annual return in 2020 was 10.2%, which represented investment income of \$1,773 million. The Petroleum Fund's balance ended 2020 at \$18.9 billion.

The publication of the financial statements and annual report were delayed by the valuation of the Fund's private debt holding in Timor Gap E.P. Following our receipt of Timor Gap's audited financial statements in late September 2021, an independent valuation was required to determine the fair value of the Fund's loans. The Ministry of Finance has adopted the valuer's central estimate of \$615.7 million, which is lower than its value of \$671.3 million as at December 2019. This issue is described in the report.

Equities have been the driver of the Fund's performance in recent years and higher than expected returns in both 2019 and 2020 allowed the Fund's

balance to increase in both years. However, our central projections are for the Fund's value to decline going forward. Withdrawals by the Government are expected to continue to be well above the ESI and petroleum revenues from Bayu-Undan have declined and will soon end. The timing and size of the inflows from other fields such as Greater Sunrise are uncertain. The sustainability analysis in the 2021 Budget Book projected that the Fund will be exhausted in a little more than 10 years if expenditure and withdrawals continue to grow.

The Fund's existing investments will need to be sold to finance the withdrawals expected in the coming years. These outflows need to be accounted for in the Fund's investment strategy and the investment experts on the Investment Advisory Board (IAB) have recommended managing the Fund's risk during this phase. The Ministry of Finance has adopted the Board's advice to segment the Fund into two parts: firstly, a liquidity portfolio of very low risk investments that will finance the withdrawals expected over the next three years and, secondly, a growth portfolio that follows the Fund's current allocation of 35% equities and 65% fixed interest.

Segmenting the Fund reduces investment risk by reducing the equity holdings in the total Fund. The Fund maintains exposure to the upside from equities through its holdings in the growth portfolio. The Ministry of Finance agrees with the IAB's advice that this provides a robust framework that will adjust to new information about the Government's fiscal policy and the expected withdrawals from the Fund. This design also encourages policy makers to plan expenditure over a number of years and also account for the Fund's sustainability. This will reconnect the Fund's investment strategy with fiscal policy.

The report provides further details on segmentation and the developments in the Fund during 2020.



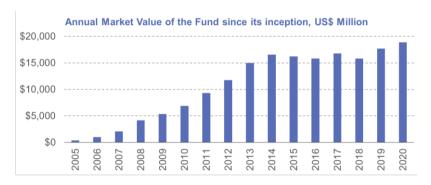
### The Fund's market value

\$18,904,964,471

As at 31 December 2020

\$17,691,816,433

As at 31 December 2019



# Receipts from oil and gas

\$326.150 million

**\$23.112** billion

In 2020

Since inception, including initial transfer

# **Transfers to State Budget**

\$886.300 million

**\$12.471** billion

In 2020

Since inception

## **Total return on investment**

**\$1.773** billion

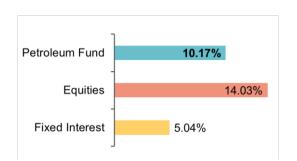
**\$8.264** billion

In 2020

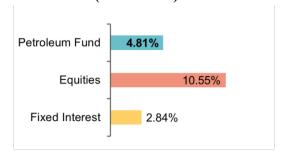
Since inception

# **Investment Highlights of the Petroleum Fund**

## **Investment return in 2020**



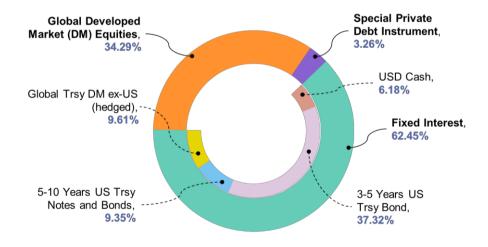
# Investment return since inception (annualised)



## The Fund's annual investment returns since 2005



## The Fund's actual asset allocations as at 31 December 2020



Note: the inner-ring is the mandates in the Fixed Interest portfolio

# **Petroleum Fund Strategic Asset Allocations**

# Fund's strategic asset allocation by asset classes

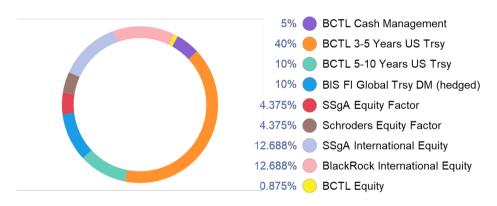
Financial Market Investments



Note: The private debt instrument is separate from the Financial Market Investments and limited to 5% of the total value of the Fund under the Petroleum Fund Law.

# Fund's strategic asset allocation by managers

Financial Market Investments



Note: The private debt instrument is separate from the Financial Market Investments and managed by the BCTL. It is limited to 5% of the total value of the Fund under the Petroleum Fund Law.

# A. About the Petroleum Fund

#### The Petroleum Fund Framework

Timor-Leste's Constitution provides that the country's natural resources are owned by the State and are to be used in a fair and equitable way in accordance with national interests. The Constitution mandates the establishment of financial reserves from the income derived from natural resources. <sup>1</sup> That was implemented in 2005 when the Petroleum Fund was created to receive income from the extraction of oil and gas from the Timor Sea. <sup>2</sup>

The objective of the Petroleum Fund is to contribute to the wise management of petroleum revenues for the benefit of both current and future generations. The Fund is a tool that contributes to sound fiscal policy, where consideration is given to the long-term interests of Timor-Leste's citizens.3 The Petroleum Fund Law provides a number of safeguards. It requires all of Timor-Leste's petroleum revenue to flow into the Fund, while the only outflow from the Fund is to the State Budget, which is approved by Parliament. According to the Petroleum Fund Law, the Fund only invests in international financial assets, which are to be assessed on the financial criteria specified in the Law. The Government's national investments are included in the State Budget and passed by Parliament. An exception to this framework was the Petroleum Fund's investment in petroleum operations in 2019, which was legislated by Parliament's amendments to the Petroleum

Activities Law. This is described in a subsequent section.

The Petroleum Fund is linked to the State Budget by specifying a sustainable level of withdrawals. The Petroleum Fund Law sets the Estimated Sustainable Income (ESI) as 3% of total Petroleum Wealth, which is equal to the value of the Petroleum Fund's investments plus the net present value of expected petroleum revenue from proven reserves and approved development fields.

Like many sovereign wealth funds, the Petroleum Fund was modelled on the permanent income framework developed for Norway's sovereign wealth fund. 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. This framework can be said to equally benefit current and future generations by providing for the same real value of withdrawals each year. An investment strategy for the Petroleum Fund was developed to earn a real return to offset the 3% withdrawals. This required amending the Petroleum Fund Law in 2011 to allow an equity allocation of up to 50% of the total fund. In 2012, a 40% equity allocation was decided upon, which at that time was expected to earn a 3% real return over the long-term. A number of challenges to this framework have arisen since 2012 and are presented in Section C.

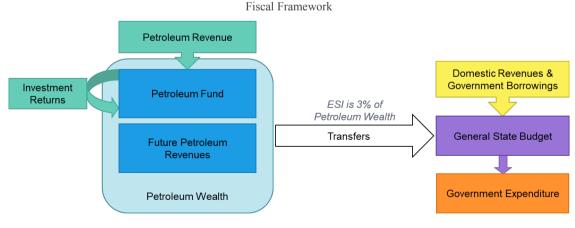


Figure 1: Petroleum Fund and the State Budget

<sup>1</sup> Article 139 of the Constitution of the Democratic Republic of Timor-Leste

<sup>2</sup> Petroleum Fund Law No.9/2005 as of 3 August 2005, which was amended by the Law No.12/2011 as of 28 September 2011. The fiscal regime that governs Timor-Leste's petroleum revenue is described in a section below.

<sup>3</sup> Preamble to the Petroleum Fund Law No.9/2005.

#### The Petroleum Fund's Institutions and Governance Framework

The Petroleum Fund is not a separate institution but is instead structured as an account held by the appointed operational manager, the Central Bank of Timor-Leste (BCTL).

Figure 2 shows the BCTL and the other institutions involved in the Petroleum Fund. The National Parliament enacts the key parameters for the Fund in the Petroleum Fund Law. These include the objectives of the Fund, the roles of its institutions, its eligible investments, the guidelines for asset allocation and the risk limits. Parliament supplemented the legal framework for the Petroleum Fund in 2019 by passing an amendment to the Petroleum Activities Law.

The Minister of Finance is the executive of the Petroleum Fund and is responsible for the overall management of the Fund as the Government's representative. The Minister of Finance's responsibilities include determining the investment

policy, setting guidelines for new investments and overseeing the Fund's governance. The Minister of Finance is supported by the Petroleum Fund Policy and Management Office (PFPMO), a division at the Ministry of Finance.<sup>4</sup> The Minister of Finance seeks advice on the Fund's investment and management from the Investment Advisory Board, as described below.

The BCTL is the Operational Manager of the Petroleum Fund. The BCTL implements the Fund's investments and its responsibilities are set out in an Operational Management Agreement (OMA) with the Minister of Finance. Annex 1 of the OMA sets out the details of the investment policy and individual mandates. Some of the portfolio is directly managed by the BCTL. For the externally managed portion of the portfolio, the BCTL undertakes manager searches and monitors the appointed external managers. The Ministry of Finance oversees the operational manager.

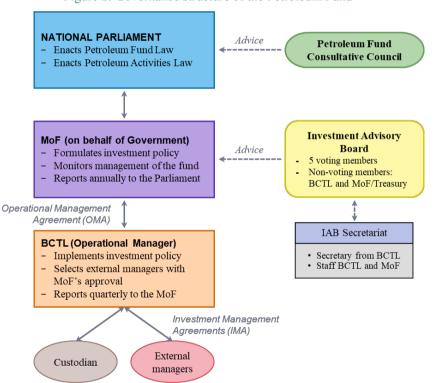


Figure 2: Governance structure of the Petroleum Fund

The Minister of Finance is required by the Petroleum Fund Law to seek advice from the Investment Advisory Board (IAB) before making decisions on the Fund's investments and management. The IAB is an advisory board that provides independent and impartial advice upon the Minister's request or on the Board's initiative. As required by the Petroleum Fund

Law, the IAB includes members who have significant experience in investment management. The Ministry of Finance, via the Director of Treasury or his/her delegate, and the BCTL, as the Operational Manager, have non-voting representatives on the Board and actively contribute to the discussions preceding the IAB's advice. The IAB is supported by a Secretary

<sup>4</sup> PFPMO was formerly known as the Petroleum Fund Administration Unit (PFAU). The section's title changed in 2020 under the Ministry of Finance's organic law, although its responsibilities remained largely the same.

from the BCTL and other members of the secretariat from both the BCTL and PFPMO. The IAB has its own budget and is able to procure external support when required. Its advice is published each year as part of the Annual Report (Annex XII), or earlier when requested by Parliament. The IAB plays a crucial role in the Petroleum Fund and the Board's independent, impartial and expert advice represents another important safeguard in the Fund's structure. The current members of the IAB are included in Annex IX.

Lastly, the Petroleum Fund Consultative Council (PFCC/CCFP) advises Parliament on the performance and operation of the Petroleum Fund and on withdrawals from the Fund, including whether the transfers are being used effectively for the benefit of current and future generations.

Transparency is a fundamental principle governing the Fund and the Petroleum Fund Law sets out the reporting requirements for each institution. The Ministry of Finance is responsible for the publication of the Petroleum Fund's Annual Report. This includes the financial statements, which are compiled by the BCTL as Operational Manager and approved by the Director of Treasury at the Ministry of Finance.<sup>5</sup> An internationally accredited auditor issues an audit report on the annual financial statements. The Ministry of Finance also undertakes the ESI

## **Timor-Leste's Petroleum Fiscal Regime**

The Fund's petroleum receipts flow from fields in Timor-Leste's jurisdiction in the Timor Sea. To date, there have been three productive fields: Kakatua, which ceased in 2007; Kitan, a smaller field that was in production from October 2011 until December 2015, when oil prices fell; and the larger Bayu-Undan field, which is still operating although production is declining and coming to an end.

A new treaty for permanent maritime boundaries between Timor-Leste and Australia became effective on 30 August 2019. Prior to this, Timor-Leste and Australia had agreed under the Timor Sea Treaty to jointly manage the exploration and exploitation of calculations, which are included in the General State Budget presented to National Parliament.

The BCTL compiles quarterly performance reports to the Minister of Finance. The BCTL also reports to the Ministry of Finance on its internally managed mandates. The annual report and quarterly performance reports are provided to key stakeholders and are publicly available on the Ministry of Finance and the Central Bank's websites.<sup>6</sup>

The Petroleum Fund has been a member of the International Forum of Sovereign Wealth Funds (IFSWF) since 2009. The Ministry of Finance undertakes an annual self-assessment of compliance with the IFSWF's Santiago Principles, which set out the best practice for sovereign wealth funds. The latest assessment is contained in Annex XIII.

There is considerable public interest in the Petroleum Fund's management and performance. The Ministry of Finance and the BCTL are committed to developing the public's understanding of the Fund's management and investment strategy. A joint press release is held upon the publication of the quarterly performance report. The BCTL and the Ministry of Finance present throughout Timor-Leste at public workshops coordinated by the Petroleum Fund's Consultative Council, although COVID-19 restrictions contributed to a limited number of workshops in 2020.

petroleum revenue in the Joint Petroleum Development Area (JPDA) for the benefit of both countries. The JPDA included the Bayu-Undan and Kitan fields and the Timor Sea Treaty provided that Timor-Leste would receive 90% of the revenue from the JPDA while Australia received 10%.

Under the new Maritime Boundaries Treaty nearly all of the former JPDA is within Timor-Leste's exclusive jurisdiction (Figure 3). In addition to Bayu-Undan and Kitan, this includes Buffalo and NOGA, which were formerly exclusively in the Australian jurisdiction. Timor-Leste will receive 100% of the petroleum revenues from September 2019 onwards.

<sup>5</sup> The Director of Treasury's responsibility to maintain the Petroleum Fund's accounts in Article 21 of the Petroleum Fund Law is delegated by the Minister of Finance to the BCTL under the Operational Management Agreement.

<sup>6</sup> The Ministry of Finance website: https://www.mof.gov.tl/. The Central Bank of Timor-Leste's website: https://www.bancocentral.tl/en

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Figure 3: Map of Timor-Leste Maritime Boundary Agreement

Source: Timor-Leste Maritime Boundary Office, https://www.gfm.tl/library/maps/

Greater Sunrise is a significant, proven oil and gas field. Under the former Treaty on Certain Maritime Arrangements in the Timor Sea (CMATS) 2006, Timor-Leste would receive only 50% of upstream revenue and Australia would receive the other 50%. The unsettled maritime boundary dispute with Australia and ongoing negotiations between Timor-Leste, Australia and the Joint Venture partners has delayed the development of Greater Sunrise. In an effort to resolve the long-running dispute, in 2016 Timor-Leste initiated a compulsory conciliation process under the United National Convention of the Law of the Sea (UNCLOS). This led to the new Maritime Boundaries Treaty, including Annex B, which establishes the Greater Sunrise Special Regime with the objective of joint development, exploitation and management of the Greater Sunrise field to benefit both parties. The Maritime represents Boundaries Treaty a significant improvement on CMATS, by providing that Timor-Leste will receive 70% of upstream revenue if the pipeline is to an LNG processing plant in Timor-Leste, or 80% of upstream revenue if the pipeline is to a plant in Australia. Timor-Leste, Australia and the participants in the joint venture continue to negotiate the development plan for Greater Sunrise.

The treaties define the countries' ownership interests, while Production Sharing Contracts (PSCs) specify how revenue is to be shared between the national owners and the oil company contractors. Bayu-Undan and Greater Sunrise are governed by Annex F of the Timor Sea Treaty, which preserves the fiscal regime that was in place prior to Timor-Leste's independence. Kitan and the other newer contracts

apply a new regime referred to as "Non-Annex F". The Timor-Leste Exclusive Area (TLEA) PSC is broadly similar to the newer JPDA regime, although the Government of Timor-Leste is provided an option to take a participating interest. The PSCs and other contracts under the former JPDA fiscal regime and those partially under the Australian fiscal regime were transferred entirely to Timor-Leste's fiscal regime following the ratification of the Maritime Boundaries Treaty. This required the oil contractors to receive equivalent conditions to the prior regime.

The States' petroleum revenues are comprised of:

- Royalties, which represent the Governments' share of production before the oil companies' cost recovery. The Governments' share is 5% of production for Annex F, Non-Annex F PSCs and the TLEA.<sup>7</sup>
- Profit oil of 40% (or 50% for condensate under Annex F), which is calculated as gross revenue less royalties and the oil companies' exploration and development costs.
- Taxes paid by the oil companies. This includes corporate income tax of 30%; an additional profit tax or supplemental petroleum tax for profitable projects that exceed a hurdle rate of return; and wage income tax for wages received for employment in Timor-Leste.

Figure 4 illustrates the components of Timor-Leste's petroleum revenues that have flowed from the three productive fields, Elang Kakatua and Kakatua North

<sup>7</sup> For projects based on Annex F, "First Tranche Petroleum" is 10% of production, which is equally shared between the Government and contractors.

(ceased in 2007), Kitan (ceased in 2015) and the Bayu-Undan field, all located in the former JPDA. Bayu-Undan's gas condensate field is now operated by Santos Ltd, which acquired ConocoPhillips' interest in the field and the Darwin LNG Plant in May 2020. The operator's royalties and profit shares are collected by Timor-Leste's National Petroleum and

Minerals Authority, ANPM, as the Designated Authority. The Petroleum-related taxes are paid directly by the contractor into the Petroleum Fund. Under the Maritime Boundaries Treaty, Timor-Leste has received all of the petroleum revenue from Bayu-Undan since September 2019.

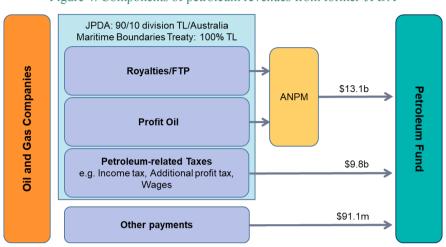


Figure 4: Components of petroleum revenues from former-JPDA

Note: Under the Timor Sea Treaty 2002, JPDA revenues were shared 90%/10% between Timor-Leste and Australia. Under the new Maritime Treaty, Bayu-Undan is exclusively in Timor-Leste's jurisdiction. The categories shown do not include the initial transfer to the Fund of \$205 million of revenues that were collected before the Fund was created.

## The Investment in Petroleum Operations

The petroleum sector, agriculture and tourism are identified as the key sectors in Timor-Leste's Strategic Development Plan 2011-2030. The Timor-Leste Government committed to onshore processing on the grounds that undertaking downstream petroleum activities will allow Timor-Leste to make the most of its oil and gas wealth. A national oil company, Timor Gap E.P., was created in 2011 to directly participate and invest in the petroleum sector. The Tasi-Mane project is establishing the infrastructure for the petroleum industry in Timor-Leste's South Coast with a supply base at Suai, a refinery and petrochemical complex at Betano and the LNG-Plant at Beacu.

To facilitate onshore processing and allow Timor-Leste to fully participate in the upside of development, the Government of Timor-Leste in September and November 2018 agreed to purchase ConocoPhillip and Shell's participating interests in the Greater Sunrise joint venture. The aggregate 56.56% ownership interest cost Timor-Leste \$650 million. In addition to receiving the State's usual share of petroleum revenue - namely, royalties, profit

oil and petroleum-related taxes - the Petroleum Fund will also receive the dividends paid by the owner, Timor Gap E.P., from its participation in the joint venture.

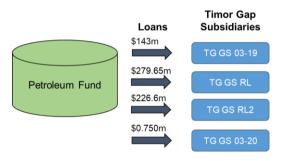
The Government's investment was initially included in the first State Budget for 2019, following the Ministry of Finance's guidance. This abided by the framework intended in the Petroleum Fund Law, whereby domestic-orientated investments were to be included in the budget and assessed by Parliament. When the \$2.1 billion Budget was not promulgated on sustainability concerns, the Government instead chose to implement the investment through a prior amendment to the Petroleum Activities Law. The amendment was made by Parliament to enable the 5 per cent allocation for alternative assets in Article 15.4 of the Petroleum Fund Law to be applied to investments in petroleum operations in national territory or abroad.

A working group - comprised of representatives from the Prime Minister's Office, the Ministry of Finance, the BCTL as operational manager of the Petroleum

<sup>8</sup> Petroleum Activities Law No. 13/2005 of 2nd of September as first amended by the Law No. 1/2019 of 18th of January, and subsequently amended by the Law No. 6/2019, as of 4 December 2019. Article 22.6 of the Petroleum Activities Law, subsequently amended by Article 22.9, provided the legal basis for the investment in petroleum operations, both located in national territory and/or abroad, through Timor GAP, E.P., the national oil company.

Fund, the Ministry of Petroleum and Minerals, and Timor Gap E.P. – agreed to structure the Petroleum Fund's investment as a \$650 million loan to Timor Gap E.P., which would then use the proceeds to acquire the interests in the joint venture. Loans were made to four subsidiaries from Timor Gap E.P. that held the related Production Sharing Contracts and Retention Leases. The interest rate was 4.5% per annum, with a grace period on repayments for the first eight years to allow time for development and production to commence. Interest would accrue during the grace period and the loan would be repaid over the following 10 years.

Figure 5: Petroleum Fund's investment in Timor Gap E.P.'s subsidiaries



The Prime Minister's office provided written confirmation to the Interim Minister of Finance in February 2019 that the investment complied with the applicable laws. The terms of the investment were confirmed by the Council of Ministers, reflecting that this investment decision was in effect made by the Government rather than the Minister. <sup>10</sup> The Minister of Finance then published the rules and criteria for

the investment and presented the change to Parliament, as required by the Petroleum Fund Law. <sup>11</sup> The loans were then made on 10 April and Timor Gap E.P. acquired the participating interests on 15 April 2019.

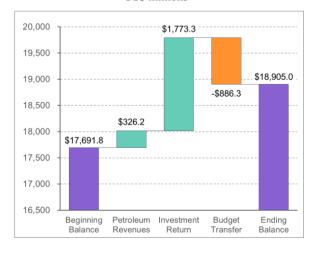
The investment in petroleum operations in 2019 is an exception to the general principles that govern the Fund's international financial investments. The amendment to the Petroleum Activities Law in 2019 allowed the Fund to invest in national territory as well as overseas. In addition, national development objectives were accounted for by the Government when determining the terms of the Fund's investment, while investments under the Petroleum Fund Law are assessed solely on financial criteria. The exposure limits in the Petroleum Fund Law will also pose challenges for the investment in the future.

The Ministry of Finance in 2019 advocated incorporating the investment in petroleum operations into the Petroleum Fund Law rather than have the Fund's investments governed by two different laws. The proposal was to introduce a new article to incorporate the changes in the Petroleum Activities Law and clearly set out the exceptional criteria that applied to the Fund's investment in petroleum operations. The remainder of the Fund's investments would continue to be governed by the original criteria. This change was supported by advice from the Investment Advisory Board. <sup>12</sup> However, the changes were not adopted following a ruling by the Court of Appeals.

# **B.** Balance and Flows

The Fund's balance increased by \$1,213 million in 2020 to end the year at \$18,905 million (Figure 6). The balance of the Fund is determined by inflows from petroleum revenues, investment returns and outflows from Government withdrawals. As Figure 6 illustrates, petroleum revenues contributed \$326 million to the Fund, while the investment return was \$1,773 million over the year. A total of \$886 million was withdrawn to finance the Government's expenditure. The following sections provide more details on these flows.

Figure 6: Movement in net-assets during 2020 US\$ millions



<sup>9</sup> The Petroleum Fund's 2019 Annual Report explains why the investment was structured as a loan rather than an equity interest.

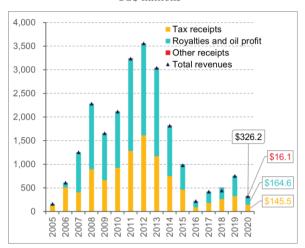
<sup>10</sup> The Council of Ministers approved Government Resolution No. 10/2019, of 27th of February 2019.

<sup>11</sup> Published in Diploma Ministerial No. 4/2019, of 1st of March.

<sup>12</sup> IAB advice to the Minister of Finance, "Proposed Amendments to the Petroleum Fund Law", 5 July 2019.

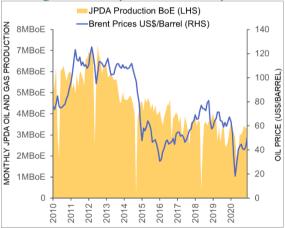
#### Petroleum revenue

Figure 7: Annual petroleum revenues US\$ millions



All of Timor-Leste's share of petroleum revenues flow into the Petroleum Fund. The total of petroleum revenues collected during 2020 was \$326 million. The revenues included \$146 million in petroleum taxes and \$165 million in royalties and profit from oil and gas (Figure 7). <sup>13</sup> These collections were in accordance with Articles 6.1 (a), (b), and (e) of the Petroleum Fund Law respectively.

Figure 8: JPDA production and oil prices



The successful execution of the Bayu-Undan infill well (BUIW) development in 2018 has enabled production to be maintained at similar levels over the past few years. Oil and gas production fell slightly from 38.0 million barrels of oil equivalent (BOE) in 2019 to 35.6 million BOE in 2020. Total production from 2004 to 2020 was 893 million BOE. 14 The

average oil price in 2020 was \$41.8/b, over \$20/b lower than the previous year's average (Figure 8). Revenue in 2020 was 57% lower than the previous year mainly as a result of lower sales as the Covid-19 pandemic curtailed economic activity in 2020, including petroleum-related activities in the Timor Sea. In 2020, 6 condensate cargoes and 4 LPG cargoes were sold, compared to 13 cargoes and 7 cargoes, respectively, in 2019.

Figure 7 shows that annual petroleum revenue has declined significantly since its peak of \$3,559 million in 2012. The decline reflects both the fall in oil prices and the decline in production (Figure 8). Prices received from Timor's petroleum products track the Brent crude oil price, which shifted lower in 2014. Bayu-Undan has been the only field in operation since Kitan closed in December 2015. Bayu-Undan's production peaked in 2011 and its productivity has declined as the field matured. The PSCs will expire in 2022, although production may extend beyond 2022 subject to reserve appraisal and the negotiations of the parties involved.

Following the acquisition of ConocoPhillips's assets in Northern Australia and Timor-Leste in May 2020, Santos became the new operator of the Bayu-Undan Joint Venture with a 68.4% interest. A Phase 3C infill drilling program at the Bayu-Undan field was proposed and approved by the National Petroleum and Minerals Authority, ANPM. The Final Investment Decision was made in early 2021 for the Phase 3C, which involves drillings of 3 production wells. The first drilling commenced in May 2021 and production is expected by Quarter 3 2021. The drillings are expected to add over 20 million barrels of oil equivalent gross reserves and to extend the life of the Bayu-Undan. 15 The present value of future petroleum revenues from Bayu-Undan is now estimated to be about \$300 million, which will depend on the oil price and production levels for the remaining life of the field. Most of the country's Petroleum Wealth from Bayu-Undan has already been transformed into financial assets. Investment income and government withdrawals will be the main drivers of the Petroleum Fund's balance until new projects come online, including Greater Sunrise.

<sup>13</sup> Annex II, Note 16 of the Audited Financial Statements provides the details of petroleum revenues.

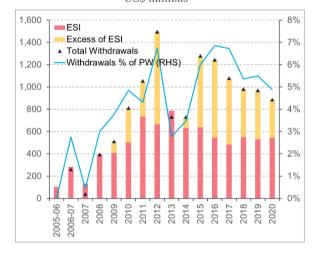
<sup>14</sup> ANPM Field Production Data: http://web01.anpm.tl/webs/anptlweb.nsf/pgLafaekDataGasListHTML

<sup>15</sup> https://www.santos.com/news/bayu-undan-infill-development-fid/

#### Withdrawals

The Government's General State Budget is largely financed by withdrawals from the Petroleum Fund. The first two proposed Budgets for 2020 were not passed by Parliament. The State Budget for 2020 was passed by Parliament and promulgated by the President in October 2020. As a result, Timor-Leste operated under a duo-decimal regime for much of 2020, which allows up to one-twelfth of the previous vear's budget to be distributed per month. During this Parliament approved extraordinary period. withdrawals from the Petroleum Fund of \$536.3 million, consisting of a \$219.5 million fund to assist with the COVID-19 emergency, with the remainder to finance the duo-decimal regime until the budget was approved. In total, the Government withdrew \$886.3 million from the Fund during 2020, which was less than the \$963.9 million authorized in the 2020 Budget Law. The Government's realized expenditure in 2020 was \$1,136 million or 83.5% of the approved Budget 2020.16

Figure 9: Transfers to the State Budget US\$ millions

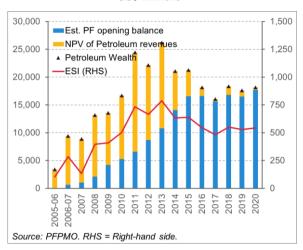


#### **Investment income and expenses**

The Petroleum Fund made an annual investment return of \$1,773 million after deducting expenses. This followed the \$2,101 million return in 2019. Total investment revenue was \$1,798 million in 2020, which included interest, dividends and trust income of \$357 million. The remaining \$1,442 million represented increases in market valuations including changes in the foreign currency. Details of the investment performance are included in Section D.

Table 1 shows that the expenses incurred in managing the Petroleum Fund totalled \$17.019

Figure 10: Petroleum Wealth and the ESI US\$ millions



Actual withdrawals in 2020 were \$341.9 million higher than the \$544.4 million ESI published in the final 2020 Budget Book. The ESI is set at 3% of the Petroleum Wealth, which was estimated as \$18,145.1 million in the final 2020 Budget Book. Petroleum Wealth consists of the Petroleum Fund balance at the beginning of the budget year (\$17,691.8 million) and the forecasted net present value of the future petroleum revenues (\$453.2 million). Future petroleum revenues only include estimates from fields with approved development plans, which therefore excludes Greater Sunrise and other potential sources of revenues.

Since 2009, annual withdrawals have averaged about 5 per cent of Petroleum Wealth, compared to the 3 per cent ESI. The excess reflects the Government's policy to front-load expenditure to enable economic development. Excess withdrawals have contributed to a decline in Timor-Leste's Petroleum Wealth, which also shifted lower with the decline in expected oil prices and revenues. (Figure 10).

million in 2020. This was higher than the previous year's expenses of \$14.839 million. The BCTL recovered its operating expenses of \$5.973 million, which was below the maximum allowed by the Operational Management Agreement, namely 4 basis points of the Fund's value. The other expenses comprised custody and external manager fees of \$8.815 million and Investment Advisory Board (IAB) expenses of \$242 thousand. Total expenses in 2020 were about 9 basis points relative to the average size of the Fund in 2020.

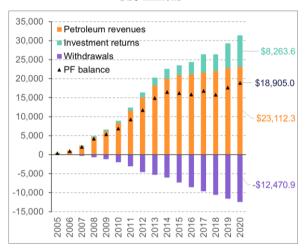
Table 1 – Management expenses in 2020 US\$ millions

0.04			
Category	2020	2019	2018
External managers and Custodian fees	8.815	8.501	9.326
BCTL Operational Management expenses	5.973	5.074	5.074
IAB expenses	0.242	0.248	0.257
Other expenses	1.989	1.016	0.845
Total expenses:	17.019	14.839	15.501
Total expenses relative to avg Fund size:	0.093%	0.089%	0.095%

## Flows since inception

Figure 11 shows the contributions to the Fund's value since its inception. Petroleum revenue has added \$23,112 million, which includes the initial transfer of revenues collected before the Fund was created. Investment returns have added \$8,264 million. Government withdrawals have totalled \$12,471 million since the Fund commenced in 2005, which exceeds the cumulative ESI over that period by \$4,814 million.

Figure 11: Cumulative flows for the Fund US\$ millions



# C. Investment Strategy

#### Financial market investments and the investment in petroleum operations

The Petroleum Fund Law sets out the Fund's eligible investments, guidelines for its asset allocation and the risk limits. The Petroleum Fund Law sets out the following rules for investments:<sup>17</sup>

- The Petroleum Fund invests only in offshore financial assets (Article 15.1). As Section A explained, the Government's domestic investment decisions are to be included in the State Budget, which is assessed by Parliament and, when approved, financed by withdrawals from the Petroleum Fund.
- A minimum of 50% of the Petroleum Fund is invested in fixed interest securities, that is, cash and investment grade bonds (Article 15.2).
- A maximum of 50% of the Petroleum Fund is invested in listed equities (Article 15.3).
- A maximum of 5% of the Petroleum Fund is able to be invested in other eligible investments (Article 15.4).

 A maximum exposure of 3% of the Petroleum Fund in any one issuer or company, other than sovereign issuers (Article 15.5).

The Petroleum Fund Law provides that the investment policy shall apply the principles of diversification with the objective of maximizing risk-adjusted financial returns after taking into account the Fund's purposes, its operational constraints and ability to bear risk (Article 14.1). There must also be sufficient liquidity to fund Government withdrawals (Article 14.2). The investments are assessed purely on these financial grounds and need to comply with sound portfolio management practices.

Since January 2019, the Petroleum Fund Law is to be read in conjunction with the first amendment of the Petroleum Activities Law that was modified by the Government and approved by Parliament. The amendment allowed the Petroleum Fund to invest in petroleum operations by applying the 5% allocation in Article 15.4 of the Petroleum Fund Law. As noted earlier, the Fund's investment in petroleum

<sup>17</sup> These points are included in the IAB's Letter to the Minister of Finance, "Proposed Amendments to the Petroleum Fund Law", 5 July 2019.

operations was executed in April 2019 by means of a loan to Timor Gap E.P.'s subsidiaries. The investment in petroleum operations represents an exception to the general rules that govern the Fund's investments. The Government's investment decision accounted for national economic development objectives and the expected economic and social benefits from onshore processing. To reflect the exception, Annex 1 of the Operational Management Agreement now divides the Fund into investments in financial markets, namely fixed interest and equities, and the investment in petroleum operations.

The equity allocation is the key parameter in the Petroleum Fund's investment strategy. Under the original Petroleum Fund Law in 2005, the Fund's investments were limited mainly to low-risk assets. Limiting the risk in the portfolio provided time for the Petroleum Fund to build credibility with stakeholders and allowed the Fund's institutions to develop financial market experience.

Equities were first introduced in 2010, when the upper limit in the 2005 Law was effectively 10%. In

order to meet the 3% real return objective implied by the ESI withdrawal rule, the Petroleum Fund Law was amended in 2011 to increase the maximum equity allocation to 50% of the Fund. A 40% equity allocation was decided upon in 2012, which, at that time, was expected to meet the 3% real return objective with a reasonable probability. The Ministry of Finance and the BCTL educated policy makers and stakeholders that pursuing the return objective requires accepting risk in terms of short-term investment return volatility. The long-term investment horizon that resulted from the fiscal framework allowed the Fund to withstand the shortterm volatility inherent in equities.

The allocation to equities was adjusted in April 2019 when the Fund invested in petroleum operations. Timor Gap E.P.'s interest repayments to the Fund are to be financed from revenues derived from the Greater Sunrise petroleum development project, meaning that the risk of the Fund's investment is more comparable to the equity allocation than bonds. Therefore, it was decided to fund the allocation by reducing the equity allocation from 40% to 35%.

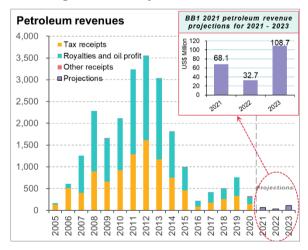
# Challenges to the fiscal framework and investment strategy<sup>18</sup>

As noted, the Petroleum Fund adopted Norway's permanent fund framework, where sustainable withdrawals were to be offset by the expected real investment return, thereby preserving the Fund's purchasing power. There are three challenges to this framework and the assumed long-term horizon behind the Fund's investment strategy. These were identified in the IAB's advice to the Minister of Finance in 2016, 2018 and 2019.<sup>19</sup>

- i) The Government is not following the ESI fiscal guideline 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 projected that this will continue and there is no formal commitment to return to the ESI in future.
- ii) In the past, high petroleum revenue allowed the Petroleum Fund to grow by filling the gap between withdrawals and actual investment returns. 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 need to be financed by selling the Petroleum Fund's investments. This will continue at least until inflows are received from the Greater Sunrise project or other significant prospective fields.





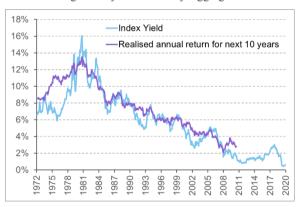
iii) When the limits in the Petroleum Fund Law were set and the investment strategy determined in 2012, it seemed reasonable to expect a 3% real return from an allocation of 40% equities and 60%

<sup>18</sup> This section largely follows the Ministry of Finance's explanatory note to Parliament on the rationale for segmenting the Fund and changing the asset allocation.

<sup>19</sup> 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.

bonds. The Fund's historical return has been close to the implied target. The annual nominal investment return since inception of the Fund is 4.8%, about 2.9% in real terms after deducting US inflation. However, future investment returns are expected to be lower because of very low interest rates. Figure 13 shows that low yields tend to be associated with low bond returns over longer horizons. The IAB first formally raised the prospect of lower expected investment returns in its advice to the Minister in 2018.<sup>20</sup> Interest rates have fallen further since then with the accommodative monetary policy response to the COVID-19 crisis. Many investment firms are also expecting returns from equities to be lower than normal over the next 10 years. The investment consulting firm Willis Towers Watson, in advice provided to the IAB in 2020, estimated that the return for the Petroleum Fund's portfolio with a 35% allocation in equities will equal about 2.5% per annum over the next 10 years. If US inflation is assumed to be 2%, the true ESI is then only 0.5% or \$94.5 million for a \$18.9 billion Fund.

Figure 13: Bond yields and future 10-year returns Bloomberg Barclays US Treasury Aggregate Index



The expected net cash outflows and lower investment returns mean that the Petroleum Fund's balance is projected to decline. The fiscal sustainability analysis included in the 2021 Budget Book projected that the Fund will be exhausted by 2033. The modelling assumed that expenditure grows at 4% per annum, which is lower than historical rates, while capital and development followed the forward estimates provided by the Infrastructure Fund and then grows with inflation.

Figure 14: US interest rates

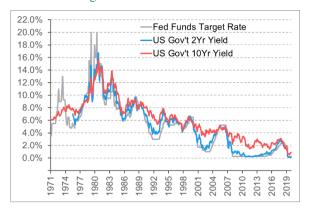
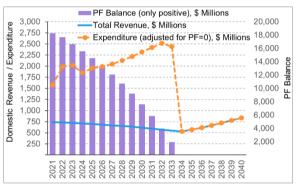


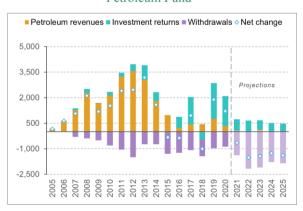
Figure 15: Petroleum Fund forecasts from 2021 Budget Book



Source: Budget Book 1 2021. National Directorate of Economic Policy, Ministry of Finance, 2020.

The Fund is expected to fall in value at least until there are inflows from Greater Sunrise or a significant change in fiscal policy. Estimates for Greater Sunrise are not incorporated in this analysis; the timing and value of inflows are uncertain. There is risk and uncertainty surrounding the other inputs, especially the investment return forecasts. Figure 16 shows that the Fund's balance was able to grow in both 2019 and 2020 because investment performance was well above current expected returns.

Figure 16: Projected annual changes to the Petroleum Fund



## Segmenting the Petroleum Fund into a Liquidity and Growth portfolio

The sequence of returns becomes important when there are cash outflows. Investments need to be sold to finance the outflows, which may require selling equities after a sharp fall in value, thereby locking in the loss. In contrast, a long-term investor has time to maintain the equity investment and recover from the fall. Equities need a sufficiently long holding period to help ensure that the higher expected return is realized.

The IAB's advice in August 2020 explained that it is critically important to manage investment risk during the Fund's 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 of Finance in November 2020.

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

- A liquidity portfolio to finance the projected withdrawals over the next three years. The lowrisk 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, which comes with higher risk and volatility.

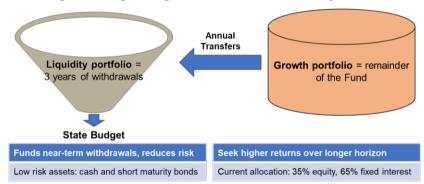


Figure 17: Segmenting the Petroleum Fund into two portfolios

Currently, the budget process focuses on withdrawals for the budget year, although the Budget Book also includes estimates of withdrawals for the subsequent four years. These forward estimates are developed by the Ministry of Finance and are not currently closely reviewed by policy makers. Closer consideration will be warranted under segmentation given they determine the size of the liquidity portfolio.

In determining the initial size of the liquidity portfolio in July 2021, the Ministry of Finance adopted the Budget Book's projection of withdrawals for 2021 after deducting the withdrawals already made. Withdrawals in 2022 and 2023 are assumed to each equal \$1 billion, which is lower than the projections in the 2020 Budget Book. The total of \$3.0 billion is allotted to the liquidity portfolio. While the withdrawal projections should be as accurate as possible, creating a liquidity portfolio that proves to be somewhat more or somewhat less than the actual withdrawals will still meet the primary objective of de-risking the Fund.

The investment risk in the Petroleum Fund is reduced because the liquidity portfolio does not hold equities. The equity weight in the Fund, excluding the private debt instrument, was reduced from its current target weight of 35% to under 30%. As a result, the volatility in the Fund's balance will reduce and some protection is provided if equity markets fall sharply.

Segmenting the Fund provides a number of other benefits in addition to reducing investment risk:

- Each portfolio has clear investment objectives.
  The liquidity portfolio will finance withdrawals
  for the next three years, while the growth
  portfolio can seek a higher return. This helps in
  setting the investment strategy and
  communicating performance to stakeholders.
- It provides confidence to policymakers and other stakeholders that the next three years of withdrawals are covered by relatively safe assets. It follows that there will be less concern about fluctuations in the market value of the growth portfolio.

• It reconnects the Fund's investment strategy with the Government's fiscal policy. This connection was broken when the 3% ESI guideline was abandoned and investment return expectations lowered. Holding the next three years of withdrawals in safe, lower-return assets encourages planning and efficient execution of public sector budgets, as required by the Preamble of the Petroleum Fund Law.

The liquidity portfolio depletes as withdrawals are made during the year. Annual transfers will be made from the growth portfolio at the beginning of each year to "top up" the liquidity portfolio.

The liquidity portfolio corresponds with the value of expected withdrawals over the next three years. The difference between the total of expected withdrawals and the value of the liquidity portfolio at the end of the year will need to be transferred, which requires selling investments in the growth portfolio. The size of the transfer and the associated sale of investments also depend on the annual return of the growth portfolio. When the return is high, which is defined as greater than 6%, 150% of the difference will be transferred, meaning that more investments are sold; when the return is low, which is specified as a negative return, 50% of the difference will be transferred, meaning that less is sold; and when the return is 0-6%, 100% of the difference will be

transferred. This counter-cyclical rule is designed to limit the sale of equities after a fall. It is also worth noting that because transfers are made to the liquidity portfolio each year, 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, including a larger liquidity portfolio. 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 a strength of the new framework is that it encourages policymakers to consider fiscal and Petroleum Fund sustainability now rather than later. Increasing the equity allocation with the objective of earning an investment return to try and offset withdrawals was considered. However, the size of expected withdrawals as a percentage of the Fund makes that unsuitable given signs that our stakeholders' risk tolerance does not support a significant increase in the risk profile of the 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.

#### **Portfolio and Holdings**

The Fund's portfolio reflects the IAB's "Statement of Investment Beliefs and Principles", which is published on the Ministry of Finance's website. <sup>21</sup> The portfolio is constructed efficiently and avoids unnecessary complexity. It is comprised primarily of Government bonds and listed equities and diversification is used to remove unrewarded risk. The equity portfolio is diversified across companies, countries and industries, while the sovereign bond portfolio helps mitigate equity risk.

Passive management is the main investment style. A passive manager invests so that the weights of the individual securities in the portfolio reflect those in the benchmark index. As a result, the mandate's investment performance will correspond with the benchmark's performance. Passive management is usually preferred by the Petroleum Fund as financial markets are seen to be generally efficient and the bulk of returns come from systematic risk factors. It provides cost effective and diversified exposure.

The 3-5 year US Treasury portfolio is passively managed by the BCTL and has a 40% weight in the financial market investment portfolio. The 5-10 year US Treasury portfolio, which has a 10% weight, has also been passively managed by the BCTL since the mandate was transferred from an external manager in late May 2020. The largest allocation to equities is also passively managed. SSgA and BlackRock's passive mandates are benchmarked to the MSCI World excluding Australia, a market-capitalisation based index. The BCTL also internally manages the allocation to Australian equities on a passive basis.

The Global Treasury ex US mandate shifted from an unhedged to hedged mandate in late April 2020 and continues to be managed on an "enhanced passive" basis that seeks to earn a moderate excess return relative to its benchmark. The Fund's allocation to equity factors departs from the market capitalization by targeting value, quality, low-volatility and, to a lesser extent, size, the characteristics of which are summarised in Table 2. The equity factor mandate

was introduced in August 2019 and amounts to one quarter of the total equity allocation. It consists of two managers; Schroders, which was originally classified as an enhanced passive mandate, and a new mandate to SSgA. Over the long-term, the equity factor mandate is expected to improve the risk-adjusted return relative to a portfolio invested in a market capitalization index.

Table 2 – Characteristics of equity factors

<b>Equity Factor</b>	Company characteristics
Value	Low valuation ratios e.g. Book to Market value
Quality	Higher profit
Low volatility	Less variable returns
Size	Smaller market capitalisation

In November 2020, the Fund was divided into i) financial market investments and ii) the loan to Timor Gap E.P. The equity allocation was kept at 35% in the aggregate benchmark, while the weight of the US Treasury 3-5 year mandate was increased from 35% to 40% to account for the previous 5% allocation to the private debt. The Fund's asset allocations are maintained relatively close to the weights in the strategic asset allocation by means of the rebalancing policy, which applies to the financial market investment portfolio (Table 3). In November,

thresholds for each of the individual mandates were replaced by a +/-5% range around the total equity allocation, which, when exceeded, will trigger a rebalance of the total portfolio. The +/-2.5% range for the cash mandate was maintained. The Petroleum Fund does not seek to forecast short-term market movements. Instead the objective is to consistently maintain exposure to systematically rewarded risks over time to ensure the risk premia are realised. By trying to time markets, an investor may fail to realise the risk premia.

Table 3 – Petroleum Fund's investment mandates as at 31 December 2020

			Allocation				
Mandate	Manager	Style	Benchmark % of FMI	Rebalancing Range	Year-end % of FMI		
3 Month US Treasury bill	BCTL	Passive	5.00%	± 2.5%	6.39%		
3-5 Years US Treasury bond	BCTL	Passive	40.00%		38.57%		
5-10 Years US Treasury Notes & Bonds	BCTL	Passive	10.00%		9.66%		
Global Treasury Developed Market ex US	BIS	Enhanced Passive	10.00%		9.93%		
<b>Total Fixed Interest</b>			65.00%		64.55%		
MSCI DM Equities ex-AU	Schroders SSgA	- Equity Factor	8.75%		8.83%		
MSCI DM Equities ex-AU	SSgA BlackRock	- Passive	25.375%		25.32%		
MSCI Australia Equities	BCTL	Passive	0.875%		1.29%		
<b>Total Equities</b>			35.00%	± 5.0%	35.45%		
Total FMI			100.00%		100.00%		
Private Debt Instrument	BCTL	Passive	n/a		3.26% of total fund		

Note: FMI = Financial Market Investments; DM = Developed Market.

Table 4 – Petroleum Fund's allocation by countries

Country	Cash	Bonds	Equities	FMI
Australia	0.1%	1.7%	3.7%	2.2%
Canada	1.0%	1.6%	3.2%	2.1%
Denmark	0.2%	1.2%	0.8%	0.9%
Eurozone	0.8%	4.7%	9.7%	6.2%
Hong Kong	0.1%	0.1%	1.0%	0.4%
Israel	0.0%	0.0%	0.1%	0.0%
Japan	0.4%	1.5%	7.6%	3.5%

Total	100.0%	100.0%	100.0%	100.0%
United States of America	96.9%	84.0%	64.7%	78.2%
United Kingdom	0.2%	1.6%	4.5%	2.5%
Switzerland	0.1%	0.9%	3.2%	1.6%
Sweden	0.0%	0.8%	1.0%	0.8%
Singapore	0.1%	1.0%	0.3%	0.7%
Norway	0.0%	0.5%	0.2%	0.4%
New Zealand	0.1%	0.5%	0.1%	0.3%

Note: Financial Market Investments only. Cash represents the USD Cash mandate, the collateral required for the hedged global treasury mandate and small amounts of cash, including non-USD, held in the bond and equity mandates for operations.

The composition of the Petroleum Fund's equity holdings largely corresponds with the benchmark index. The MSCI World Index is comprised of large and mid-size capitalisation companies that are listed in developed markets. The Petroleum Fund held 1,832 companies at the end of 2020. The holdings are reported in Annex II. Table 4 shows that almost 65% of the equity portfolio is invested in companies listed in the US. Eurozone countries represent the next largest allocation at about 10% of the equity portfolio, followed by Japan (7.6%) and the UK (4.5%). The allocation to Australian equities is internally managed by the BCTL and at 3.7% is slightly overweight relative to the MSCI World.

The US cash portfolio was fully invested in overnight repurchase agreements via the Federal Reserve Bank of New York. The US allocation represents 84% of the bond portfolio and consists of the US Treasury 3-5 year and 5-10 year bonds. The Non-US government bond allocation is benchmarked to a customised index of developed markets, which is designed to facilitate diversification by capping the Eurozone allocation at 30% of the index and individual country

weights at 10%. The allocations in Table 4 reflect the benchmark weights, with the Eurozone representing 4.7% of the total fixed interest holdings, while the weights for Australia, Canada, Japan and the UK are consistent with the maximum country weight.

In terms of the foreign currency exposure, the fixed interest holdings are effectively entirely in US dollars because the global developed market sovereign bond mandate is now hedged to the US dollar, while Cash and the US Treasury mandates are denominated in US dollars. The equity holdings are unhedged so that the currency exposures correspond with the country weights in Table 4.

At the total portfolio level for financial market investments, about 78% of the Fund is invested in US securities, with the Eurozone the next largest allocation at 6%. The USD dominates the currency exposure at over 87%, with small exposures to the other major currencies – namely, the Euro, the Japanese Yen, the British Pound, the Canadian dollar and the Australian dollar - via the unhedged equity allocation.

# D. Investment Performance in 2020

The Petroleum Fund's total return in 2020 was 10.17%, which added to the 13.25% return in 2019. Both fixed interest and equities posted solid gains over the year. The equity portfolio recovered from a sharp fall in the first quarter to post an annual return of 14.0%. The fixed interest allocation returned 5.0% as bonds recorded capital gains when yields fell. The Petroleum Fund's loan to Timor Gap returned negative 8.3% in 2020, following an independent valuation of the loan.

Figure 18: Annual returns from bonds and equities

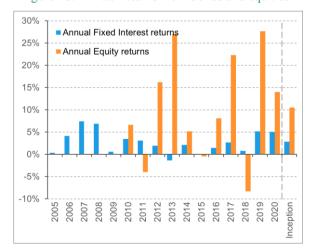


Table 5 – Petroleum Fund's investment performance in 2020

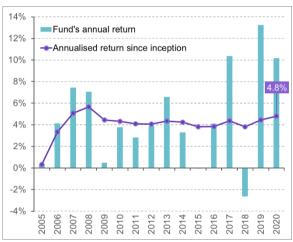
Asset Class	Q1	Q2	Q3	Q4	2020	2019	5 Years	Since inception
Total Fund	-4.70	7.27	2.90	4.73	10.17	13.25	6.90	4.81
Benchmark	<b>-</b> 4.99	7.28	2.99	4.69	9.91	13.44	6.75	4.75
Excess	0.28	-0.01	-0.10	0.05	0.27	-0.19	0.15	0.06
International Fixed Interest	3.95	0.84	0.28	-0.08	5.04	5.16	3.01	2.84
Benchmark	4.10	0.93	0.27	-0.09	5.25	5.40	3.05	2.85
Excess	-0.15	-0.08	0.01	0.01	-0.21	-0.24	-0.04	-0.01
International Equities	-21.64	18.66	7.50	14.07	14.03	27.67	12.03	10.55
Benchmark	-21.05	19.36	7.93	13.96	15.90	27.67	12.19	10.26
Excess	-0.58	-0.70	-0.43	0.11	-1.87	0.00	-0.16	0.29
<b>Special Private Debt Instrument</b>	1.15	1.09	1.09	-11.24	-8.26	3.28	n/a	-3.05
Benchmark	1.15	1.09	1.09	1.11	4.50	3.28	n/a	4.44
Excess	0.00	0.00	0.00	-12.35	-12.76	0.00	n/a	-7.49

Consecutive years of double-digit returns saw the Petroleum Fund's annualized return since inception rise to 4.81% (Figure 19). The fixed interest portfolio's return since 2005 is 2.84% per annum and the equity allocation's annualized return is 10.55% per annum since 2010. The return from bonds since equities were introduced in October 2010 is 1.97% per annum.

The Fund's annualized real return since inception is 2.90% after adjusting for US inflation. Since equities reached their strategic allocation weight in June 2014, the real return of the total portfolio is 3.78% per annum, in excess of the implied target of 3%. However, as Section C explained, investment returns over the next 10 years are expected to be lower than the 3% real return that corresponds with the ESI rule.

# returns

Figure 19: Petroleum Fund annual investment



## **Developments in financial markets in 2020**

Risk assets ended 2019 on a strong note as trade tensions between the US and China eased with the announcement of a phase-one trade deal to be signed in January. The coronavirus pandemic and Governments' health and economic policy responses subsequently dominated the news in 2020. The virus was initially seen as limited to China, which introduced restrictions in January and February. However, global equity markets began to sell-off in the second half of February when it became clear that the novel coronavirus was spreading to other countries. It quickly developed into a pandemic, with the epicentre moving from China to Europe and later to the US. Lockdowns were introduced globally in March to flatten the steepening curve of case numbers. People were required to stay at home, nonessential businesses were closed and countries closed their borders. The outbreak and Government controls led to a sharp contraction in economic activity although the extent and length of the downturn was highly uncertain during the first phase of the pandemic. Governments responded with fiscal policy

measures to try and limit the economic fallout by preserving employment and allowing firms to stay in business during the lockdowns. Central banks cut monetary policy rates where that was possible and quantitative easing – the buying of bonds – was introduced. The swift policy response supported equity markets although the MSCI World total return index still fell 21.05% in quarter 1, the worst quarterly performance since the global financial crisis in 2008.

The Petroleum Fund's highest exposure is to the US markets, given the Fund's holdings in the US Treasury bond mandates and the large size of US stock markets. The US economy started 2020 with moderate growth, low unemployment and belowtarget inflation. The Federal Reserve had earlier signalled that rates would remain on hold at 1.5-1.75% unless the economic outlook changed. The outbreak of the coronavirus and the associated restrictions led to the Federal Reserve holding two emergency meetings in March, which cut the policy rate to near

zero (0.0-0.25%). The Fed also introduced purchases of US Treasuries and corporate bonds and the US Congress passed substantial fiscal stimulus.

The economic outlook for Europe was weak before the outbreak of coronavirus, with low economic growth and inflation. The ECB had cut its deposit rate to -0.5% in September 2019 and provided guidance that rates would remain at current levels or lower until inflation converged to near 2%. In response to the outbreak of the pandemic, the ECB maintained its already highly accommodative policy rates and introduced asset purchases of €750 billion. Member countries also passed fiscal stimulus.

Japan also had very low policy rates prior to the coronavirus and the central bank had provided forward guidance that it would continue with low rates for an extended period. Following the COVID-19 outbreak, the Bank of Japan maintained its interest rate settings and broadened its asset purchase programme. The policy rate remained at -0.1% and a 0% target for the 10-year government bond yield was maintained. The Japanese government announced fiscal stimulus in April.

Monetary policy rates in both the UK and Australia started 2020 at 0.75% and low rates were expected for some time. Canada's policy rate was held at 1.75% in 2019 after fairly robust growth and inflation near its target. With the onset of COVID-19, the policy rates in all three countries were cut to 0.25% in the first quarter. Canada and the UK introduced quantitative easing and Australia's central bank announced an interest rate target of 0.25% for 3-year government bonds.

The expectation for an extended period of low policy rates and weak growth saw global bond yields fall during the first quarter of 2020. A flight to safe assets led to particularly strong demand for US Treasury bonds and US government bond yields finished near all-time lows. The yields of Eurozone bonds moved further into negative territory.

Additional fiscal stimulus and quantitative easing were announced in the second quarter. This included the EU's €750 billion recovery fund to support those member states hit hardest by the crisis, which was funded by the European Commission borrowing from financial markets. Many countries started to gradually ease restrictions in May and June when case numbers fell, which contributed to early signs of an economic recovery near the quarter's end. The unprecedented monetary and fiscal stimulus packages and gradual reopening of economies boosted investor sentiment. Financial markets shifted to "risk-on" mode despite the considerable

uncertainty about the path of the pandemic and the economic outlook. The MSCI World's total return was 19.4% in the June quarter, offsetting a good portion of the fall in the first quarter. Global bond yields remained low in quarter 2 because of the subdued outlook for growth and inflation, in combination with quantitative easing. Yields on the Petroleum Fund's fixed interest benchmarks edged lower, allowing the bond portfolio to post a modest quarterly gain.

The release of quarter 2 GDP numbers showed the severe depth of the global recession. Economic activity recovered in the third quarter as countries continued to loosen lockdown restrictions, however, it was not the hoped-for V-shaped recovery. A second wave of the virus in Europe and the UK led to restrictions being renewed towards the end of the September quarter. The MSCI World posted returns of 7.93% in quarter 3, supported by the very low interest rates, expansive fiscal policy and signs of recovery. Bond yields were little changed and the Fund's fixed interest portfolio posted a modest quarterly gain.

Positive news on coronavirus vaccines was the main driver of financial markets in the fourth quarter. The US Presidential election was resolved and risk assets were further boosted by a new US fiscal stimulus package. The Federal Reserve signalled that rates will remain on hold until 2023 and that quantitative easing will continue until there is substantial further progress on its employment and inflation goals. Facing persistently low inflation, the ECB increased its asset purchasing programme in quarter 4 and committed to maintaining the policy rate at present or lower levels until the inflation outlook converges to near its target. Coronavirus case numbers in the US, UK and mainland Europe surged during the fourth quarter, causing restrictions to be reintroduced. Nevertheless, the regulatory approval of effective vaccines and the hope of a swift economic recovery saw the MSCI World Index return 14.0% in the December quarter. In fixed interest markets, shorterterm bond yields were anchored by expectations that policy rates would remain on hold for a number of years. Yields on US Treasury 10-year bonds rose along with inflation expectations.

Figure 20: Government bond yields

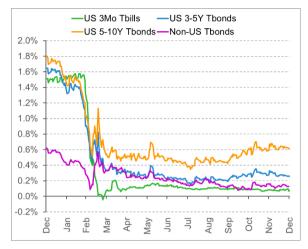


Figure 20 illustrates the sharp fall in yields of the Fund's fixed interest benchmarks that accompanied the first wave of the virus and lockdowns. The 3-month Treasury bill yield then remained very low, in line with the Fed's near zero policy rate. The US Treasury 3-5 bond yield finished the year 139 basis points lower at 0.26%, while the 5-10 year yield fell 120 basis points to 0.61%. The 5-10 year mandate realized a higher annual return of 8.80% versus 5.95% for 3-5 years because of its longer duration (Table 6).

The other developed markets that comprise the Fund's non-US government bond benchmark generally started the year with lower bond rates compared to the US, which restrained the fall in yield in the first quarter. The yield of the non-US government bond index finished down 50 basis points relative to the start of the year to end at 0.13%. The non-US government bond mandate returned 0.87% in 2020, which combines the return of the unhedged mandates until April with the subsequent hedged return.

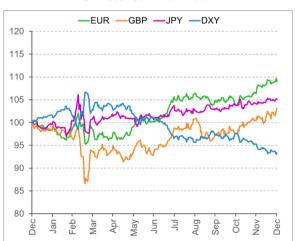
Over the course of the year, the MSCI World Index returned 15.9% in USD terms. In terms of the MSCI indexes' annual returns in local currency, US equities outperformed, recording gains of 20.7%. Japanese equities returned 8.8% and European equities excluding the UK returned 1.43%. Australian equities lagged, posting a local currency return of -1.0%. UK equities lost 13.2% in 2020 despite a strong performance in the fourth quarter when a last-minute trade deal with the European Union was agreed.

Figure 21: Equities total returns in US dollar 31 December 2019 = 100



The USD returns of the non-US equity markets were boosted by foreign currency gains. The US Dollar Index, a measure of the US dollar relative to the currencies of the United States' major trading partners, finished the year 6.7% lower (Figure 22, DXY series). The appreciation of the USD in the first quarter when investors sought safe assets was more than offset by falls in the subsequent quarters when market sentiment improved. All of the major currencies appreciated against the US dollar in 2020. The euro appreciated by 8.9% in 2020, the Japanese Yen rose by 5.1% and the British pound appreciated by 3.1%, after recovering from a sharp fall in the first quarter.

Figure 22: US dollar relative to other currencies 31 December 2019 = 100



# **Developments in the private debt instrument**

In April 2019, the Petroleum Fund invested in private debt instruments issued by subsidiaries of Timor Gap E.P. The proceeds of the loans were used by Timor Gap to purchase participating interests in the Greater Sunrise oil and gas field development project on behalf of Timor-Leste.

The loan instruments were originally measured at amortized cost. There was an 8-year grace period on repayments, meaning that the value of the loan increased in 2019 and 2020 as interest accrued at 4.5% per annum. At the end of December 2020, the carrying value at amortized cost was \$701.35 million.

During the course of the audit of the Petroleum Fund's 2020 financial statements, Ernst and Young, the Fund's external auditor, explained that the conditions for amortized cost were not met at initial recognition. It was determined that the solely payment of principal and interest (SPPI) test in IFRS 9 was not satisfied as Timor Gap had limited assets and other cash flows separate from Greater Sunrise, meaning that the ability to service the loan was mostly, if not solely, dependent on the successful development of the Greater Sunrise project.

This required determining the fair value of the loan instruments, which is defined as the price determined between a willing buyer and seller. Unlike the Fund's investments in government bonds and listed equities, a quoted price in an active public market is not available for the private debt instrument. Given that the loan is closely connected to the underlying development project, Timor Gap's audited financial statements are a required input for completing the Petroleum Fund's financial statements. Timor Gap is required under the loan agreement to provide its statements at the end of April 2021 but there was a considerable delay in 2021. In late September 2021, Timor Gap shared its audited consolidated financial statements, whereby the value of its participating interest in Greater Sunrise was written down from \$673.6 million to zero as at December 2020. This followed an independent valuation report undertaken on behalf of Timor Gap, which estimated a negative net present value of the owners' participating interests ("Total Contractors' Take") in Sunrise. The notes in Timor Gap's financial statements attributed the impairment loss to uncertainty about the fiscal and regulatory regime of the Greater Sunrise Special Regime, uncertainty about the joint venture partners' agreed development concept to commercially develop the field, revisions to medium and long-term oil and gas price projections, and the effects on margins from the macroeconomic environment, the

COVID-19 pandemic, and energy market demand and supply fundamentals.

An independent valuation was, in turn, required to determine the value of the Petroleum Fund's loans. This was procured by the BCTL on behalf of the Petroleum Fund and the valuation report was completed in February 2022. The finding was that the instruments were performing loans in that there were expected to be sufficient cash flows from the underlying assets for Timor Gap to meet its obligations. The valuer determined the discount rate for the loan's cash flows as 5.62% as at December 2020. The initial yield of 4.5% was assessed to be consistent with market rates and the agreed yield was then adjusted for changes in comparable rates since inception. The central estimate of the value of the loan was \$615.7 million. The valuer provided a range of discount rates of 5.12% to 6.12% and corresponding valuations ranging from \$583.2 million to \$650.1 million. The Petroleum Fund's 2020 financial statements adopt the central estimate as the valuation of the loan resulting in a fair value loss of \$85.65 million being recognised for the year ended 31 December 2020. The percentage return on the loan in 2020 was -8.26 per cent.

An independent valuation of the Petroleum Fund's private debt instruments will be undertaken each year going forward. The fair value can increase or decrease depending on the valuer's expectations about the loan's cash flows and the discount rate. The timely provision of Timor Gap's audited financial statements is critical for the timely publication of the Petroleum Fund's annual report and financial statements.

## Investment performance relative to benchmark

Table 6 – Fixed interest mandates investment performance in 2020

Mandate	Q1	Q2	Q3	Q4	2020	2019	5 Years	Since inception
International Fixed Interest Aggregate	3.95	0.84	0.28	-0.08	5.04	5.16	3.01	2.84
Excess to Benchmark	-0.15	-0.08	0.01	0.01	-0.21	-0.24	-0.04	-0.01
BCTL Cash Management	0.30	0.00	0.00	0.00	0.30	2.21	1.20	1.34
Excess to Benchmark	-0.27	-0.02	-0.04	-0.03	-0.37	-0.07	-0.01	-0.35
3-5 Years US Treasury Bonds	5.26	0.54	0.18	-0.07	5.95	5.02	2.94	2.12
Excess to Benchmark	-0.10	0.01	0.02	-0.03	-0.11	-0.18	-0.04	0.00
5-10 Years US Treasury Bonds [1]	8.58	0.71	0.33	-0.84	8.80	7.57	4.14	3.06
Excess to Benchmark	-0.21	0.00	0.00	-0.05	-0.23	0.14	0.01	0.00
Global Treasury ex-US Hedged [2]	n/a	0.30	0.78	0.36	1.45	n/a	n/a	1.45
Excess to Benchmark	n/a	0.02	0.06	0.04	0.12	n/a	n/a	0.12
Global Treasury ex-US Unhedged [3]	-3.12	-1.20	n/a	n/a	-0.57	5.43	1.42	-0.25
Excess to Benchmark	-0.10	-0.15	n/a	n/a	-0.13	-0.12	-0.05	-0.01

Notes: [1] 5-10 Years US Treasury Bonds combines the performance of the BIS (December 2011 until May 2020) and the BCTL (April until December 2020). [2] Global Treasury Developed Market ex-US Hedged shows performance from May until December 2020. [3] Global Treasury Developed Market ex-US Unhedged shows performance from July 2014 until April 2020.

The Fund outperformed the aggregate benchmark's annual return of 9.91% by 27bps (Table 5). The performance was boosted by a rebalance in late March, when bonds were sold and equities were bought, which coincided with near the bottom of the equity market. The equity weight then grew with the outperformance until in mid-December the total portfolio was rebalanced when equities exceeded the 5% range.

The majority of the Petroleum Fund's investment mandates are designed to track their benchmark indexes. The aggregate fixed interest portfolio's performance was below its benchmark's return by 21bps and the internally managed mandates underperformed their benchmarks (Table 6). The

BCTL's cash mandate is fully held in the Federal Reserve Bank of New York's foreign repo pool, which invests in overnight repurchase agreements. The mandate's return was 0.30% in 2020, 37bps lower than the return on the 3-month US Treasury bill benchmark. The internally managed 3-5 Year US Treasury Bond mandate was 11bps lower than its benchmark and the 5-10 Year US Treasury mandate underperformed the benchmark by 24bps after the mandate was transferred to the BCTL in June 2020. The externally managed non-US global treasury mandate outperformed its benchmark by 12bps when it was modified to a hedged mandate managed by the BIS, while the unhedged mandate accumulated comparable underperformance relative to its benchmark earlier in the year.

Table 7 – International equity mandates investment performance in 2020

Mandate	Q1	Q2	Q3	Q4	2020	2019	5 Years	Since inception
International Equities Aggregate	-21.64	18.66	7.50	14.07	14.03	27.67	12.03	10.55
Excess to Benchmark	-0.58	-0.70	-0.43	0.11	-1.87	0.00	-0.16	0.29
SSgA International Equities	-21.46	19.08	8.08	13.91	15.14	28.28	12.40	11.61
Excess to Benchmark	-0.69	-0.09	0.05	0.13	-0.92	0.50	0.13	0.26
BlackRock International Equities	-21.28	19.24	8.12	13.92	15.61	28.22	12.51	11.08
Excess to Benchmark	-0.51	0.07	0.08	0.14	-0.46	0.44	0.24	0.27
Multi-Factor International Equity	-21.14	16.15	6.30	13.58	10.57	8.95	n/a	14.17
Excess to Benchmark	-0.37	-3.02	-1.74	-0.19	-5.49	-0.52	n/a	-4.24
BCTL Aus Equity	-34.14	29.11	2.81	22.80	7.35	22.59	8.23	9.19
Excess to Benchmark	-0.89	0.20	-0.02	-0.09	-1.38	-0.33	-0.26	-0.29

The equity portfolio's performance in 2020 was 1.87% below the benchmark's return of 15.90%, primarily because of the performance of the equity factor allocation. As noted, the equity factor mandates tilt towards companies with higher exposures to Value, Quality and Low Volatility factors. Over the long-

term, this is expected to improve the risk-adjusted return relative to a portfolio invested according to market-capitalization weights. However, the performance of factors is subject to cycles and the big technology firms outperformed in 2020. As a result, the Fund's equity factor allocation underperformed

the cap-weighted MSCI World by 5.5% in 2020, with Schroders and SSgA recording broadly similar annual returns. The Fund's two passive global mandates, SSgA and BlackRock, usually match the performance of the market capitalization index,

although in 2020 posted returns 92bps and 46bps below the benchmark's return. The internally-managed passive Australian equity mandate underperformed its benchmark by 1.38% over the year.

Table 8 – Special Private Debt Instrument for petroleum operations

Mandate	Q1	Q2	Q3	Q4	2020	2019	5 Years	Since inception
Special Private Debt Instrument	1.15	1.09	1.09	-11.24	-8.26	3.28	n/a	-3.05
Benchmark	1.15	1.09	1.09	1.11	4.50	3.28	n/a	4.44
Excess	0.00	0.00	0.00	-12.35	-12.76	0.00	n/a	-7.49

The Petroleum Fund's loan to Timor Gap returned -8.26% in 2020. The present value of the loans' cash flows – annual repayments of principal and interest that start in 2027 – equals \$615.7 million, applying the valuer's central estimate of the discount rate of 5.62%. The fair value at the end of 2020 was lower than the \$671.3 million value of the loan as at

December 2019, which was based on the original discount rate of 4.5%. The benchmark return for 2019 and 2020 adopts the 4.5% agreed yield at which interest accrues.

# E. IAB Advice and the Fund Going Forward

The Investment Advisory Board (IAB) advises the Minister of Finance on matters relating to the investment strategy and management of the Petroleum Fund as enacted by Article 16 of the Petroleum Fund Law. The IAB's advice is required to be published in the Annual Report according to Article 24 of the Petroleum Fund Law.

The IAB held 12 meetings and two workshops in 2020. The IAB's advice to the Minister of Finance in 2020 is included in full in Annex XII and is summarised below.

# Currency hedging and the bond portfolio

Hedging the currency exposure of the global sovereign bond portfolio was implemented in 2020. To recap, the IAB's advice in May 2019 recommended hedging the currency exposure of the non-US sovereign bond portfolio and making related changes to managers of the bond mandates. The Fund's two existing managers were unable to implement hedging through the Fund's custodian, while the Bank for International Settlements (BIS) was able to execute currency hedging on behalf of the BCTL. The Minister adopted the IAB's advice and in July 2019 instructed the BCTL to proceed with implementing a hedged mandate via the BIS, an existing fund manager. Management of the US Treasury 5-10 year mandate was to be transferred from the BIS to the BCTL to be managed on a passive basis.

The IAB were briefed on the BCTL's plan to implement currency hedging on 5 February 2020. The BCTL explained that cash collateral was

required to implement hedging through derivatives. The BIS required 10 per cent of the market value of the bonds to be held as collateral in a USD account. The Board's advice to the Minister on 21 February 2020 was to include the cash collateral within the hedged mandate's 10 per cent allocation in the Fund and to adopt a composite benchmark that incorporated the cash collateral. The Minister adopted the IAB's advice and these changes were included in Amendment No. 12 of Annex 1 of the OMA, which took effect on 1 May 2020. The Cash mandate in Annex 1 was also amended to make it clear that deposits and securities issued by the BIS were eligible. The BIS started managing non-US sovereign bonds on a hedged basis at the beginning of May 2020 and the BCTL took over management of the US Treasury 5-10 year mandate in late May 2020, following Amendment No. 13 of Annex 1.

## Maintenance of the asset allocation following the Covid-19 crash

The IAB wrote to the Minister of Finance on 1 May 2020 following the release of the Petroleum Fund's performance results for the first quarter. Equity markets fell sharply during the quarter as a result of the lockdowns associated with the coronavirus pandemic. The decline in value of the Fund's equity portfolio was partly offset by an increase in the value of the Government bond portfolio, which resulted from a sharp fall in yields. The total return for the Fund in quarter 1 was -4.7%, which the IAB explained was well within the range of expected returns during an adverse market event.

## Modified rebalancing policy

The Secretariat presented to the IAB in May 2020 on the Petroleum Fund's current rebalancing process and alternative approaches. Rebalancing involves buying and selling assets to bring their allocations back in line with the optimal weights determined in the strategic asset allocation. Rebalancing has been shown to provide higher risk-adjusted returns over the long-term relative to allowing the weights to drift with the asset classes' performance.

The Board's advice dated 12 August 2020 agreed with the PFPMO's recommendation to simplify the Fund's rebalancing rule. Rather than specify ranges for all of the mandates, a range for the total equity allocation will be set, given that the equity allocation is the primary determinant of the portfolio's risk. A threshold of +/-5 per cent around the equity weight of 35 per cent will be applied, which when exceeded will trigger a full rebalance of the investment mandates to near their target weights. A +/-2.5 per cent range will continue to apply to the Cash mandate and the BCTL will review the weights each month.

PFPMO briefed the IAB in October 2020 on proposed revisions to Annex 1 of the Operational Management Agreement to reflect the new The IAB's letter confirmed to the Minister that the Fund's 35% equity allocation should be maintained and that the declines in the first quarter may be recovered in time. This proved to be the case, with an unusually fast rebound in equity markets in 2020. The Board also reiterated its advice in October 2019 that clarity on the Fund's cash flows and its horizon is needed when determining the asset allocation going forward. If the Fund's expected horizon is closer to 10 years, then it may be appropriate to gradually but progressively reduce the equity allocation, starting in 2021.

rebalancing policy. The revisions had been discussed beforehand with the BCTL. The Annex separated the Fund's Financial Market Investments, which are subject to rebalancing, from the Investment in Petroleum Operations, which is unable to be traded. The asset allocations were specified for the Financial Market Investments, excluding the loan to Timor Gap E.P., which previously had a 5 per cent weight. In the aggregate benchmark for Financial Investments, the equity allocation was maintained at 35 per cent, while the weight in the US Treasury 3-5 Year mandate was increased by 5 per cent to 40 per cent. Other amendments were also proposed for the tracking errors of the BCTL's internal mandates and a provision was added to expressly provide the BCTL with flexibility when disposing of eligible investments that subsequently fall outside of the benchmark index. The IAB agreed with these changes on 14 October 2020, and the decision was documented in the IAB's minutes.

The Minister of Finance approved the new rebalancing rule along with the other changes, which were implemented in Amendment No. 14 to Annex 1, effective as at 1 November 2021.

### Adjusting the Fund's asset allocation to account for near-term withdrawals

The IAB advised the Minister in August and November 2020 on adjusting the Fund's asset allocation for withdrawals. This is covered in Section C, which describes the rationale for segmenting the Petroleum Fund.

The Board's letter on 12 August 2020 explained that the Fund's investment strategy needs to account for the Fund's expected cash flow profile and its resulting investment horizon. The projections provided to the IAB by the PFPMO showed that the Fund's balance is expected to decline and that

existing investments will need to be sold to finance withdrawals. The IAB's advice proposed creating a separate portfolio of highly liquid, low-risk securities to finance withdrawals over the next three years. It is important to manage risk during the decumulation phase and the proposal reduces the Fund's aggregate equity allocation. The Board's letter requested formal guidance from the Ministry of Finance on expected withdrawals and set out the Board's plan to receive independent advice from an investment consulting firm to help ensure that the IAB's recommendations

maximize the Fund's expected return given its circumstances.

After receiving independent analysis, the Board provided advice to the Minister on 13 November 2020. The letter noted that the projections for withdrawals in the 2021 Budget Book warranted increasing the funds held in cash, currently 5 per cent of the Fund, and short-term bonds. These low-risk investments will be held in a separate portfolio to finance the Ministry of Finance's best estimates of withdrawals over the next three years. The remainder

#### The Fund in 2021

The focus in the first half of 2021 was on segmenting the Petroleum Fund to account for decumulation; the details were agreed during the first half of the year. The proposal to segment the Fund into a liquidity and growth portfolio was approved by the Council of Ministers in May and submitted to Parliament in June. Implementation started on 1 July 2021.

The release of Timor Gap's audited financial statements in late September 2021 necessitated further work on the Petroleum Fund's financial statements. The BCTL procured Duff and Phelps to undertake an independent valuation of the Petroleum Fund's loan instruments to Timor Gap E.P.'s subsidiaries. The valuation report was completed in February 2022, which allowed the Fund's financial statements to be completed and investment returns to be recalculated to account for the write-down in the value of the loans.

The Ministry of Finance continued to work on the Fund's governance. A governance framework that clearly defines the roles and responsibilities of the Petroleum Fund's institutions is critical for effective

of the Fund will be invested according to the current 35/65 percent weights in equities and bonds. The Board believed that the parameters provide an acceptable trade-off between reducing risk in the near-term versus being able to participate in upside risk, after taking into account uncertainty in withdrawals. The projected withdrawals will be reviewed annually and a rules-based regime will be developed for adding funds to the liquidity portfolio. The details on implementing segmentation are described in Section C.

management. It is also timely to update the Operational Management Agreement between the Ministry of Finance and the BCTL, which was last revised in 2009.

As noted, Annex 1 of the Operational Management Agreement now clearly divides the Fund into financial market investments and the investment in petroleum operations. The proposal to modify the Petroleum Fund Law in 2019 to clearly reflect this division, including the special criteria that govern the Fund's Investment in Petroleum Operations, needs to be revisited in light of the exposure limits in the Petroleum Fund Law.

The expected life of the Fund still allows for potential improvements to the asset allocation, in particular in the longer-term, growth portfolio. The Ministry of Finance and BCTL are working collaboratively on researching potential asset classes. When assessing new investments, the transfers from the Fund and its expected depletion need to be accounted for and our research and execution need to be efficient.

# **ANNEXES**

# Annex I. Statement by Director General of Treasury

### Petroleum Fund of Timor-Leste General Information 31 December 2020

Minister of Finance Rui Augusto Gomes

Fernando Hanjam (24 June 2020 – 5 November 2020)

Sara Lobo Brites (Acting Minister, 25 Jun 2018 – 28 May 2020)

**Director General of Treasury**Rui Fereira Magno (until 15 January 2021)

Members of Investment Advisory Board Olgario de Castro

Gualdino da Silva Torres Trovik Prof. Michael Drew

Ex Officio (non-voting) Venancio Alves Maria

Rui Fereira Magno (alternate, Ernesto da Conceição Silva)

Governor of Central Bank of Timor-Leste Abraão de Vasconselos

**Executive Director of the Petroleum Fund**Venancio Alves Maria

Operational Manager Banco Central de Timor-Leste

Avenida Xavier do Amaral, no. 9

Dili

Timor-Leste

Investment Managers Banco Central de Timor-Leste

Bank for International Settlements

Schroders Investment Management Limited

State Street Global Advisors

BlackRock Investment Management Australia Limited

Alliance Bernstein Wellington Management

**Members of Petroleum Fund Consultative Council** Pe. Julio Crispim Ximenes Belo

Izilda Imanuela da Luz P. Soares

Nuno Eugénio Goulart Julio Fernandes Juvinal Dias Zelia Fernandes

Hernani Agostinho Soares Martinha da Silva de Jesus

Custodian J P Morgan Chase Bank N.A.

Independent Auditor Ernst & Young

## Petroleum Fund of Timor-Leste Statement by the Director General of Treasury 31 December 2020

#### **BACKGROUND**

The Petroleum Fund Law No. 9/2005 promulgated on 3 August 2005, as amended by Law No. 12/2011, of the 28th September, established the Petroleum Fund of Timor-Leste ("Petroleum Fund"). The Ministry of Finance is responsible for the overall management of the Petroleum Fund and the Banco Central de Timor-Leste ("BCTL") is responsible for the operational management. In accordance with a Management Agreement dated 12 October 2005 and amended on 25 June 2009 between the Ministry of Finance and the BCTL, BCTL is also responsible for maintaining the books of account for the Petroleum Fund on behalf of the Director General of Treasury.

#### FINANCIAL STATEMENTS

In accordance with Article 21 of the Petroleum Fund Law, the financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS). The statements are:

- Statement of profit or loss and other comprehensive income,
- Statement of financial position,
- Statement of changes in capital,
- · Statement of cash flows, and
- Notes to the financial statements

These financial statements cover the year ended 31 December 2020

The Petroleum Fund's financial statements are the most complex International Financial Reporting Standards (IFRS) financial statements produced in Timor-Leste. To optimize the readability of the notes to a wide audience, the notes are structured to provide the reader with:

- a general introduction to the subject matter of the note,
- financial tables elaborating on the data in the primary statements,
- a description of the risks, important judgements or key assumptions that have been made in recording and presenting the data, and
- the related accounting policies.

The financial statements have been independently audited by Ernst & Young whose audit opinion is attached to the financial statements

## PETROLEUM FUND CAPITAL

The Petroleum Fund had capital of US\$17.7 billion on 1 January 2020 (2019: US\$15.8 billion). During the year, additional capital received from taxes and other petroleum revenue under Article 6 of the Petroleum Fund were US\$0.3 billion (2019: US\$0.8 billion). Additional capital or fund received from taxes and other petroleum revenue is not subjected to tax and the Fund itself does not have taxes (other than withholding tax). The Petroleum Fund recorded a profit of US\$1.8 billion (2019: US\$2.1 billion) during the period. A summary of transactions for the income is given in the "Statement of profit or loss and other comprehensive income".

US\$0.9 billion was transferred from the Petroleum Fund to the Consolidated Fund during the year. The capital of Petroleum Fund as at 31 December 2020 was US\$18.9 billion (2019: US\$17.7 billion). A summary of the transactions is given in the "Statement of changes in capital".

## BENCHMARKS AND PERFORMANCE

Until November 2020, the asset allocation was unchanged from 2019 at 55% fixed interest securities, 35% global equities, 5% alternatives and 5% cash. From November 2020, the asset allocation weights were specified in terms of financial market investments only, namely, 60% fixed interest securities, 35% global equities and 5% cash. The allocation to private debt is treated separately as Investments in Petroleum Operations and is limited to 5% of the total value of the Fund under the Petroleum Fund Law.

The Investment Advisory Board considers this to be an appropriate risk level given the investment horizon of the Petroleum Fund. The Board reviews the investment strategy and asset allocation of the Petroleum Fund regularly, taking into account the expected returns and risk of investments along with the projected cash flows for the Fund, including the Government's withdrawals.

## Petroleum Fund of Timor-Leste Statement by the Director General of Treasury 31 December 2020

Summary of benchmarks Benchmark index	As at	As at
	31 December 2020*	31 December 2019
Fixed interest		
BOA Merrill Lynch US Government 3-5 Years	40.0%	35.0%
BOA Merrill Lynch US Government 5-10 Years	10.0%	10.0%
Developed Market Sovereigns - Custom	10.0%	10.0%
Total fixed interest	60.0%	55.0%
Global equities		
MSCI World	35.0%	35.0%
Total global equities	35.0%	35.0%
Alternatives		
Special Private Debt Instrument	n/a	5.0%
Total alternatives	n/a	5.0%
Cash		
3 Months US Treasury Bills	5.0%	5.0%
Total cash	5.0%	5.0%
Total benchmark	100%	100%

<sup>\*</sup> The benchmark weights as at 31 December 2020 are specified for financial market investments only, that is, cash, global equities and fixed interest. The special private debt instrument is reported separately as Investments in Petroleum Operations.

#### Performance

In accordance with the Article 24.1(a) of the Petroleum Fund Law and the provisions of the Management Agreement, the Petroleum Fund assets were invested in mandated instruments during the year. The list of instruments held as at 31 December 2020 is given at Note 24. The credit exposure by credit rating is given at Note 14(b)(iii). The performance of the Petroleum Fund during the period has been in accordance with the mandate of the Management Agreements.

Net profit on financial assets at fair value through the profit or loss has been significant at US\$1.4bn in 2020 reflecting the performance of global equities during the year. This does not include interest income from financial assets at fair value through profit or loss. Interest income from financial assets at fair value through profit or loss is presented separately. The net foreign exchange gain reflects the depreciation of the US dollar during 2020 into which foreign investments are translated.

During the period, the Ministry of Finance together with the BCTL have been able to accomplish the stewardship and fiduciary role for the Petroleum Fund.

## SIGNIFICANT CHANGES IN THE STATE OF AFFAIRS

There were no significant changes in the state of affairs of the Petroleum Fund during the year.

## APPROVAL OF FINANCIAL STATEMENTS

In the Ministry of Finance opinion, there are reasonable grounds to believe that the Petroleum Fund will be able to pay its debts as and when they become due and payable, and the attached financial statements and notes thereto are in accordance with the Petroleum Fund Law No. 9/2005, as amended by Law No. 12/2011, including compliance with accounting standards and giving a true and fair view of the financial position and performance of the Petroleum Fund. The accompanying financial statements for the year ended 31 December 2020 have been approved on behalf of the Ministry of Finance by:

Regina de Jesus de Sousa

Director General of Treasury

Ministry of Finance Government of Timor-Leste

31 March 2022

# **Annex II. Audited Financial Statements**



Ernst & Young 11 Mounts Bay Rd, Perth WA 6000, Australia PO Box 7034, Cloisters Square, WA 6850 Tel: (08) 6225 5150 ey.com/au

Independent auditor's report to The Ministry of Finance, Democratic Republic of Timor-Leste in respect of the Petroleum Fund of Timor-Leste annual financial report for the year ended 31 December 2020

## Opinion

We have audited the financial report of Petroleum Fund of Timor-Leste (the "Petroleum Fund"), which comprises the statement of financial position as at 31 December 2020, statement of profit or loss and other comprehensive income, statement of changes in capital and statement of cash flows for the year then ended, and notes 1 to 23 to the financial statements, including a summary of significant accounting policies, and the statement by the Director General of Treasury.

In our opinion, the accompanying financial report present fairly, in all material respects, the financial position of the Petroleum Fund as at 31 December 2020 and its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRS).

## Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the financial report* section of our report. We are independent of the Petroleum Fund in accordance with the ethical requirements of the *International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (including International Independence Standards) (IESBA Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.* 

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

## Information other than the financial report and auditor's report thereon

Management is responsible for the other information. The other information obtained at the date of this auditor's report is the Statement by the Director General of Treasury, Annex III. Statements on accounting policies of the Petroleum Fund for the fiscal year 2020 - Treasury Statement on Accounting Policies of the Petroleum Fund for the Fiscal Year 2020 and PART VII: Schedule of Financial Assets: 24. Schedule of financial assets valued through profit or loss.

Our opinion on the financial report does not cover the other information and accordingly we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.



# Responsibilities of the management and those charged with governance for the financial report

Banco Central de Timor-Leste, the operational manager ("management") is responsible for the preparation and fair presentation of the financial report in accordance with International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of financial report that is free from material misstatement, whether due to fraud or error.

In preparing the financial report, management is responsible for assessing the Petroleum Fund's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Petroleum Fund or to cease operations, or has no realistic alternative but to do so.

## Auditor's responsibilities for the audit of the financial report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with International Standards of Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

As part of an audit in accordance with International Standards of Auditing, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- ▶ Identify and assess the risks of material misstatement of the financial report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- ▶ Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Petroleum Fund's internal control.
- ► Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- ► Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Petroleum Fund's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial report or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based



on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Petroleum Fund to cease to continue as a going concern.

► Evaluate the overall presentation, structure and content of the financial report, including the disclosures, and whether the financial report represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the management and those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Earst & Young

Ernst & Young Perth 31 March 2022

## Petroleum Fund of Timor-Leste Statement of profit or loss and other comprehensive income for the year ended 31 December 2020

	Note	Year ended 31/12/2020 USD	Year ended 31/12/2019 USD
Income			
Interest income	4	209,340,316	259,114,920
Dividend income	5	141,478,920	152,679,195
Trust income	5	5,715,984	6,239,728
Other investment income		522,619	47,198
Net gains on financial assets and liabilities at fair value through profit or loss	6	1,439,734,661	1,704,662,463
Net foreign exchange gains	7	1,672,320	2,027,073
Total income		1,798,464,820	2,124,770,577
Expenses	8		
External management and custody fees	20	(8,815,267)	(8,501,090)
Investment Advisory Board expenses	20	(241,552)	(248,195)
BCTL operational management fees	20	(5,972,837)	(5,074,140)
Other expenses	20	(1,989,365)	(1,015,865)
Withholding taxes expenses	9	(8,148,176)	(9,007,444)
Total expenses		(25,167,197)	(23,846,734)
Profit for the year		1,773,297,623	2,100,923,843
Other comprehensive income			
Total comprehensive income for the year		1,773,297,623	2,100,923,843

## Petroleum Fund of Timor-Leste Statement of financial position as at 31 December 2020

	Note	As at 31/12/2020 USD	As at 31/12/2019 USD
Assets			
Cash and cash equivalents	11	1,368,699,037	940,852,534
Other receivables	12	23,374,447	32,565,093
Financial assets at fair value through profit or loss	14	17,545,736,873	16,736,215,572
Total assets		18,937,810,357	17,709,633,199
Liabilities			
Financial liabilities at fair value through profit or loss	14, 15	30,255,631	225,813
Payables for securities purchased		-	14,279,912
Accounts payable		2,590,255	3,311,041
Total liabilities		32,845,886	17,816,766
Net assets		18,904,964,471	17,691,816,433
Capital			
Capital		18,904,964,471	17,691,816,433

## Petroleum Fund of Timor-Leste Statement of changes in capital for the year ended 31 December 2020

	Note	Year ended 31/12/2020 USD	Year ended 31/12/2019 USD
Capital at the beginning of the year		17,691,816,433	15,803,638,122
Petroleum Fund gross receipts	16	326,150,415	756,254,468
(pursuant to Article 6 of the Petroleum Fund Law)	_	18,017,966,848	16,559,892,590
Transfers to the Consolidated Fund of Timor-Leste (pursuant to Article 7 of the Petroleum Fund Law)	16	(886,300,000)	(969,000,000)
Transfers for refunds of taxation (pursuant to Article 10 of the Petroleum Fund Law)	16	-	-
Total comprehensive income/(loss) for the year	-	1,773,297,623	2,100,923,843
Capital at the end of the year	=	18,904,964,471	17,691,816,433

## Petroleum Fund of Timor-Leste Statement of cash flows for the year ended 31 December 2020

	Note	Year ended 31/12/2020 USD	Year ended 31/12/2019 USD
Cash flows from operating activities			
Proceeds from sale and maturities of financial assets at fair value through profit or loss	14	17,142,723,753	12,958,725,951
Purchases of financial assets at fair value through profit or loss	14	(16,457,932,619)	(12,254,772,248)
Interest received		178,982,838	237,405,872
Dividends received		134,005,857	144,726,403
Trust distributions received		5,798,745	6,150,969
External management and custody fees paid		(15,029,656)	(13,223,346)
Other operating receipts		522,618	47,196
Other operating payments	_	(2,710,151)	(1,015,865)
Net cash from operating activities	17	986,361,385	1,078,044,932
Cash flows from investing activities			
Investment in private debt instruments	14	-	(650,000,000)
Net cash utilized in investing activities	_	-	(650,000,000)
Cash flows from financing activities			
Petroleum Fund gross receipts	16	326,150,415	756,254,468
Transfer payments to the Consolidated Fund of Timor-Leste	16	(886,300,000)	(969,000,000)
Refunds of tax receipts	16		
Net cash flows utilized in financing activities		(560,149,585)	(212,745,532)
Net increase in cash and cash equivalents		426,211,800	215,299,400
Cash and cash equivalents at the beginning of the year		940,852,534	725,098,971
Effects of foreign currency exchange rate changes on cash and cash equivalents		1,634,703	454,163
Cash and cash equivalents at 31 December	11	1,368,699,037	940,852,534

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#### **PART I: INTRODUCTION**

#### 1. Fund information

The Petroleum Fund of Timor-Leste ("Petroleum Fund") was established under the provisions of the Petroleum Fund Law No. 9/2005 as amended by Law No. 12/2011 on 28 September 2011.

The investment strategy and benchmarks of the Petroleum Fund are determined by the Ministry of Finance based on advice from the Investment Advisory Board (IAB).

The Banco Central de Timor-Leste (BCTL) having its office at Avenida Xavier do Amaral, no. 9, Dili, Timor-Leste, is responsible for the operational management of the Petroleum Fund and is the registered owner of all the assets of the Petroleum Fund. The management of the Petroleum Fund is undertaken according to a Management Agreement between the Ministry of Finance and the BCTL.

The Petroleum Fund's objective is to meet benchmark returns on its capital within the risk limit provided in mandates and within the limits established in Articles 14 and 15 of the Petroleum Fund Law relating to Investment Policy and Investment Rules.

The Petroleum Fund's investment portfolio of assets at fair value through profit or loss, assets at amortised costs and cash and cash equivalents complied with the legislative and contractual requirements throughout the period.

These financial statements were authorized for issue by the Director General of Treasury on 31 March 2022.

## 2. Statement of compliance with IFRS

In accordance with Article 21 of the Petroleum Fund Law, the financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS).

The Petroleum Fund has adopted the IFRS that were applicable during the year.

Information about the impact of new and forthcoming IFRS on these financial statements is provided in Note 22.

## 3. Basis of preparation

Items included in the Petroleum Fund's financial statements are measured and presented in United States dollars, being the functional and official currency of the Democratic Republic of Timor-Leste.

The financial statements are prepared on the historical cost basis, except for certain financial investments that are measured at fair value through profit or loss, as explained in the accounting policies described herein.

The accounting policies have been consistently applied by the Petroleum Fund.

## Estimates and judgements

The preparation of financial statements in conformity with IFRS requires management to make judgments, estimates and assumptions that affect the application of policies and reported amounts of assets, liabilities, income and expense. The estimates and associated assumptions are based on historical experience and other factors that are believed to be reasonable under the circumstances, the results of which form the basis of making the judgments about carrying values and assets and liabilities that are not readily apparent from other sources. Estimates use observable data to the extent practicable. However, areas such as potential market changes, credit risk, volatilities and correlations require management to make estimates that could affect the reported fair value of financial instruments. Actual results may therefore vary from these estimates. This process involves a high degree of judgement or complexity.

Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision, and future periods if the revision affects both current and future periods.

Assumptions and estimates that are significant to the financial statements are disclosed in the relevant notes, as are the judgements made by management which have a significant effect on the amounts recognized in the financial statements.

# PART II: NOTES TO THE STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

The statement of profit or loss and other comprehensive income, also known as the profit & loss account, is a report of income, expenses and the resulting profit or loss earned by the Petroleum Fund during the period from 1 January to 31 December each year.

The concept of income encompasses both revenue and gains. Revenue arises in the course of the normal activities of the Petroleum Fund and is referred to by a variety of names, including interest and dividends. Gains represent increases in economic benefits and include both realized and unrealized gains, including the revaluation of marketable securities and foreign exchange.

The concept of expenses encompasses losses as well as those expenses that arise in the course of the ordinary activities of the Petroleum Fund.

Other comprehensive income includes items of income or expense (including reclassification adjustments) that are not recognized in profit or loss as required or permitted by IFRS.

#### **Comparatives**

Certain comparatives have been reclassified to conform with the current year presentation without any impact on the Petroleum Fund's profit after tax or net assets. Specifically, during the current year, the Petroleum Fund's investment in the private debt instruments issued by subsidiaries of Timor Gap Lda has been reclassified from financial assets at amortised costs to financial assets at fair value through profit or loss (refer to note 13 for more details).

#### 4. Interest income

Interest income is derived from the Petroleum Fund's investments in fixed interest securities, cash balances and short-term cash investments.

	Year ended 31/12/2020 USD	Year ended 31/12/2019 USD
Interest from Fixed interest securities at fair value through profit or loss	206,520,400	233,917,246
Interest from cash and cash equivalents	2,819,916	25,197,674
	209,340,316	259,114,920

## Accounting policy

Interest income from fixed interest securities at fair value through profit loss is accrued based on contractual coupon rates. It is recognized in the statement of profit or loss and other comprehensive income and shown separately from other fair value movements

#### 5. Dividends and trust income

Dividends received are distributions from the Petroleum Fund's holding of equities and represent the Petroleum Fund's share of profits paid out to shareholders. Trust income is similar to dividends but is derived from the Petroleum Fund's investments in real estate entities that are incorporated as Real Estate Investment Trusts.

	Year ended	Year ended
	31/12/2020	31/12/2019
	USD	USD
Dividend income	141,478,920	152,679,195
Trust income	5,715,984	6,239,728
	<u> 147,194,904</u>	158,918,923

## Accounting policy

Dividend income from investments and unit trust distribution income are recognized when the shareholder's right to receive payment has been established. Dividend income and unit trust distributions are presented gross of any non-recoverable withholding taxes and are disclosed separately in the statement of profit or loss and other comprehensive income.

## 6. Gain or loss on financial assets and liabilities at fair value through profit or loss

This item includes changes in the fair value of financial assets and liabilities held for trading or designated upon initial recognition as 'at fair value through profit or loss' and excludes interest and dividend income and expenses. These changes arise from changes in the market value of the financial investments (or liabilities) held by the Petroleum Fund.

 Year ended
 Year ended

 31/12/2020
 31/12/2019

 USD
 USD

 1,439,734,661
 1,704,662,463

Net gains on financial assets and liabilities at fair value through profit or loss

#### Accounting policy, estimates, assumptions, judgements and risks

See Note 14 which sets out information that relates to this item:

- · details of the accounting policies relating to financial assets and liabilities designated as 'at fair value through profit or loss',
- the significant judgements and estimates that have been made and may be material in determining the reported gain or loss on financial assets and liabilities,
- · the risks associated with holding financial assets and liabilities that may impact on the reported profit or loss, and
- an analysis of the sensitivity to changes in future market conditions that may give rise to gains or losses on financial assets and liabilities.

## 7. Foreign exchange gain

The Petroleum Fund's functional currency is USD. Foreign currency transactions are translated into US dollars using the exchange rates prevailing at the dates of transactions. Foreign currency assets and liabilities are translated into the functional currency using the exchange rate prevailing at the statement of financial position date. When the US dollar strengthens relative to another currency in which the Petroleum Fund holds assets, the Petroleum Fund will incur a foreign exchange loss. Conversely, if the Petroleum Fund holds an asset denominated in a currency other than US dollars, and that currency strengthens, the Petroleum Fund will incur a foreign exchange gain.

#### Accounting policy

Foreign exchange gains and losses on financial instruments measured at fair value through profit or loss – namely, the Fund's investments in equities and fixed interest - are included in the gain or loss on those instruments reported in Note 6. Other foreign exchange gains and losses resulting from the settlement of transactions and from the translation at year end exchange rates of monetary and other financial assets and liabilities denominated in foreign currencies are disclosed in the statement of profit or loss separately below.

Year ended 31/12/2020 31/12/2019 USD USD

1,672,320 2,027,073

Net foreign exchange gains

## 8. Expenses

In accordance with the provisions of the Petroleum Fund Law, all expenses of the Petroleum Fund other than the external audit fee (which is met from the state budget), not relating to the purchase or sale of securities and recognized in the sale or purchase price, are met by the BCTL and are covered by a management fee. This management fee is legally a deduction from the gross receipts of the Petroleum Fund (Art 6.3 of Petroleum Fund Law), although it is recognized as an expense in the statement of profit or loss and other comprehensive income.

Expenses which are incidental to the acquisition of an investment at amortised cost are included in the cost of that investment while transactions costs of an investment at fair value through profit or loss that are directly attributable to the acquisition of the financial asset or financial liability are expensed off.

Expenses that are incidental to the disposal of an investment are deducted from the disposal proceeds of the investment.

## 9. Taxation

The Petroleum Fund is exempt from all forms of taxation in Timor-Leste under Timor-Leste law. Therefore, the Petroleum Fund has a statutory tax rate of 0%.

Investment income and capital gains are subject to withholding tax in certain foreign jurisdictions and are the only items subject to taxation.

In the current year tax has been withheld from foreign dividend, unit trust income and interest received according to the applicable laws. Relief from withholding tax is available on application in some of these jurisdictions.

#### Accounting policy

Income of the Petroleum Fund earned in foreign jurisdictions subject to withholding taxes levied in those jurisdictions is recorded gross of withholding taxes in the statement of profit or loss and other comprehensive income. Withholding taxes, to the extent that they are not recoverable, are shown as a separate line item in the statement of profit or loss and other comprehensive income.

#### Critical accounting estimates, assumptions and judgements

Uncertainties exist with respect to the interpretation of complex tax regulations and changes in tax laws on income derived in foreign jurisdictions and the recoverability of amounts withheld. Given the wide range of international investments, differences arising between the actual investment income and the assumptions made, or future changes to such assumptions, could necessitate future adjustments to tax expense already recorded. The Petroleum Fund establishes provisions, based on reasonable estimates, for possible consequences of audits by the tax authorities of the respective countries in which it invests. The amounts of such provisions are based on various factors, such as experience of previous tax audits and differing interpretations of tax regulations by the taxable entity and the responsible tax authority. Such differences of interpretation may arise on a wide variety of issues depending on the conditions prevailing in the respective investment's domicile. As the Petroleum Fund assesses the probability for litigation and subsequent cash outflow with respect to taxes as remote, no contingent liability has been recognized.

## PART III: NOTES TO THE STATEMENT OF FINANCIAL POSITION

The statement of financial position, also known as the balance sheet, presents the financial position of the Petroleum Fund as at the end of its financial year, 31 December. The statement of financial position comprises three main components: assets, liabilities and capital.

An asset is something that the Petroleum Fund owns or controls in order to get economic benefits from its use. The main assets of the Petroleum Fund are bonds and equities (shares).

A liability is an obligation that the Petroleum Fund owes to another party which in normal circumstances is settled in cash or other financial resources.

The capital is the net wealth of the Petroleum Fund that belongs to its ultimate owner, the Democratic Republic of Timor-Leste.

The statement of financial position presents assets and liabilities in decreasing order of liquidity and does not distinguish between current and non-current items.

## 10. Risk management

The Petroleum Fund's overall risk management programme seeks to maximize the returns derived for the level of risk to which the Petroleum Fund is exposed and seeks to minimize potential adverse effects on the Petroleum Fund's performance. Specific risks are managed as follows:

## 10.1. Financial risk

The Petroleum Fund's activities expose it to a variety of financial risks, being market risk (including equity price risk, interest rate risk and currency risk), credit risk and liquidity risk.

The financial risks associated with the Petroleum Fund are monitored by the Risk Management Division of the Petroleum Fund Management Department at the BCTL which prepares daily management reports for senior management and quarterly reports for the Ministry of Finance. The Petroleum Fund is subject to periodic audit by the Internal Audit Office of the BCTL which has operational independence from the management of the Petroleum Fund. The Internal Audit Office provides formal monthly reports to the Governor and half-yearly reports to the Governing Board of the BCTL.

## 10. Risk management (continued)

#### 10.2. Market risk

Market risk is the risk that movements in market factors, such as foreign exchange rates, interest rates, credit spreads, equity prices and commodity prices, will reduce the Petroleum Fund's income or the value of its portfolios.

The objective of managing this risk is to manage and control market exposures, including for example the use of conservative benchmarks and tracking error in manager mandates, in order to optimize return on risk while ensuring solvency.

#### 10.3. Credit risk

Credit risk is the risk that the issuer of a debt instrument is not able to repay the principal and/or interest on the due dates.

The Petroleum Fund manages the credit risk associated with private debt instruments by requiring issuers to comply with covenants, including amongst other things requirements for the issuer to provide regular financial and cash flow statements, and to maintain accumulated cash flow projections well in excess of outstanding repayments of principal and interest.

#### 10.4. Liquidity risk

Liquidity risk is the risk that the Petroleum Fund may not be able to generate sufficient cash resources to settle its obligations which would primarily be to fund the State budget account, in full, or can only do so on terms that are materially disadvantageous.

To manage this risk, the Ministry of Finance has agreed in the Management Agreement to provide the Central Bank with a forecast of the future cash requirements of the government, including the projected timings and amounts to be transferred from the Petroleum Fund.

Liabilities at the year-end were US\$32.8 million (2019: US\$17.8 million) and consists of derivative liabilities, payables for securities purchased but not settled at the year end and management fees payable. These are expected to be settled within 30 days of the year end but are not considered to create a liquidity risk for the Petroleum Fund due to available cash which is sufficient to cover these liabilities. The Central Bank monitors the Petroleum Fund's liquidity position on a daily basis. Where there are potential shortfalls, financial assets will be sold to meet anticipated shortfall. The Petroleum Fund invests primarily in marketable securities and other financial instruments which, under normal market conditions and except for the investment in private debt instruments, are readily convertible to cash.

## 11. Cash and cash equivalents

The Petroleum Fund has a number of bank accounts in which it holds cash. Surplus cash is invested in overnight markets with banks or through reverse repurchase agreements which may be thought of as secured overnight deposits.

	31/12/2020 USD	31/12/2019 USD
Cash at bank	208,099,037	117,952,534
Overnight reverse repurchase agreements	1,160,600,000	822,900,000
	1,368,699,037	940,852,534

## **Accounting policy**

Cash comprises current deposits with banks which have maturities of less than 90 days. Cash equivalents are short term highly liquid investments that are readily convertible to known amounts of cash, are subject to an insignificant risk of changes in value and are held for the purpose of meeting short term cash commitments rather than for investment or other purposes.

Securities purchased under agreements to resell (reverse repurchase agreements) with a maturity period of greater than one financial day are reported not as purchases of securities but as receivables and are carried in the statement of financial position at amortized cost.

Interest earned on reverse repurchase agreements is recognized as interest income over the life of each agreement using the effective interest method.

As at

## 11. Cash and cash equivalents (continued)

#### Risks

Cash and cash equivalents are not subject to significant interest rate risk. Credit risk is managed by holding cash at financial institutions with a high reputation – the Federal Reserve Bank of New York with a Standard & Poor's rating of AA+ (very strong capacity to meet its financial commitments), JPMorgan Chase Bank N.V. with a Standard & Poor's short-term issuer rating of A-2 (susceptible to adverse economic conditions however the obligor's capacity to meet its financial commitment on the obligation is satisfactory) and Bank for International Settlements.

### 12. Other receivables

Other receivables are financial assets that are classified as loans and receivables including cash balances due from financial intermediaries from the sale of securities, receivables from reverse repurchase agreements with a maturity of more than one business day and other short term loans and receivables including accruals for investment income receivables.

	As at 31/12/2020	As at 31/12/2019
	USD	USD
Dividends receivables	5,195,775	6,086,293
Withholding tax receivables	17,247,476	16,519,470
Trust distributions receivables	788,391	935,086
Due from brokers receivables	-	8,791,368
Interest receivables	142,795	232,867
Other receivables	10	9
	23,374,447	32,565,093

#### Accounting policy

Loans and receivables (other than those classified as held for trading) are measured initially at their fair value plus any directly attributable incremental costs of acquisition or issue and subsequently measured at amortized cost.

#### Impairment of financial assets

The Petroleum Fund monitors all financial assets that are subject to the IFRS impairment requirements to assess whether there has been a significant increase in credit risk since initial recognition. If there has been a significant increase in credit risk the Petroleum Fund will measure the loss allowance based on lifetime rather than 12-month ECL. The Petroleum Fund's accounting policy is not to use the practical expedient that financial assets with 'low' credit risk at the reporting date are deemed not to have had a significant increase in credit risk. As a result the Petroleum Fund monitors all financial assets that are subject to impairment for significant increase in credit risk.

In assessing whether the credit risk on a financial instrument has increased significantly since initial recognition, the Petroleum Fund compares the risk of a default occurring on the financial instrument at the reporting date based on the remaining maturity of the instrument with the risk of a default occurring that was anticipated for the remaining maturity at the current reporting date when the financial instrument was first recognized. In making this assessment, the Petroleum Fund considers both quantitative and qualitative information that is reasonable and supportable, including historical experience and forward-looking information that is available without undue cost or effort.

At 31 December 2020 and 31 December 2019, all other receivables, amounts due from brokers, cash and short-term deposits are held with counterparties with a credit rating of AA/Aa or higher and are due to be settled within 1 week. Management consider the probability of default to be close to zero as the counterparties have a strong capacity to meet their contractual obligations in the near term. As a result, no loss allowance has been recognised based on 12-month expected credit losses as any such impairment would be wholly insignificant to the Fund.

#### Risks

Receivables, other than recoverable withholding taxes, are subject to minimal risk and are generally paid within a short time frame in the normal course of business.

The recovery of withholding tax receivables is dependent on processing and approval by the relevant tax authorities.

## 13. Investment in private debt instruments

In 2019, the Petroleum Fund purchased certain private debt instruments issued by subsidiaries of Timor Gap Lda in relation to the purchase in April 2019 of participating interests and rights in the Greater Sunrise oil and gas field by the Democratic Republic of Timor-Leste.

The debt instruments carry a coupon rate of 4.5% and are repayable over a period of 18 years with a repayment grace period of 8 years.

#### Accounting policy

In the prior year, the Petroleum Fund had classified the investment in the private debt instruments as financial assets carried at amortized cost and measured the investment at the amount at which the financial asset is measured on initial recognition minus the principal repayments, plus or minus the cumulative amortization using the effective interest method of any difference between that initial amount and the maturity amount, adjusted for any loss allowance.

During the financial year, the Petroleum Fund reviewed the accounting treatment for the investment. As a result of this review, it was determined that at initial recognition, the private debt instruments did not meet the solely payments of principal and interest (SPPI) test under IFRS 9 to be designated as financial assets carried at amortized costs. The investment was reclassified as financial assets held at fair value through profit or loss on initial recognition in April 2019.

At 31 December 2020, the Petroleum Fund, in consultation with a third party valuer has estimated the fair value of the investment in the private debt instruments to be \$615,700,000 using a discounted cash flow model based on the contractual cashflows under the debt instruments and an implied market interest rate of 5.62%. The implied interest rate was estimated using the starting yield adjusted for changes in comparable rates since the transaction date. If the discount rate increased/decreased by 1%, the fair value of the investment would decrease/increase by \$62.9 million/\$71.3 million. The impact due to the changes in designation of the investment at 31 December 2019 was determined not material and therefore no changes in measurement were considered necessary at that date.

The movement in the fair value for the year ended 31 December 2019 and 31 December 2020 is summarised in the table below:

	31 December 2020 USD	31 December 2019 USD
Balance at beginning of the year	671,313,500	-
Investment during the year	-	650,000,000
Interest income	30,036,500	21,313,500
Fair value loss	(85,650,000)	<u>-</u>
Balance at end of the year	615,700,000	671,313,500

## Risks

The private debt instruments owned by the Petroleum Fund have been issued by subsidiaries of Timor Gap Lda on the assumption that the cash flows from their investments in the Greater Sunrise oil and gas field will exceed the cost of the rights purchased and subsequent development costs. There are risks that:

- the cash flows from Timor Gap's share of oil and gas revenues may not be large enough to meet the contractual repayments of principal and/or interest; or
- the anticipated cash flows from oil and gas revenues may not materialize within the time frame assumed by the grace period; or
- other events may occur that impact the ability of the issuers to make the agreed repayments at the agreed times.

The Petroleum Fund has established procedures for regular reviews of the issuers' financial forecasts, covenants and other information that collectively provide an "early warning system" that the probability of one or more of these risks materializing may have increased.

The Timor Gap private debt instruments are denominated in US dollars. As a result, there is no exposure to foreign currency risk. There is also no exposure to price risk because the investments will be held to maturity.

## 14. Financial assets and financial liabilities at fair value through profit or loss

The Petroleum Fund invests in a range of financial instruments in order to generate income. The investments include equities (shares) and fixed interest (bonds) and a limited number of derivative instruments.

Typically, derivative contracts serve as components of the Petroleum Fund's investment strategy and are utilized primarily to structure and hedge investments, to enhance performance and reduce risk to the Petroleum Fund (the Petroleum Fund does not designate any derivative as a hedging instrument for hedge accounting purposes).

The Petroleum Fund uses derivative financial instruments to economically hedge its risks associated with foreign currency fluctuations. Additionally, derivative financial instruments may also be used for trading purposes where the investment manager believes this would be more efficient than investing directly in the underlying financial instruments. Derivatives often reflect, at their inception, only a mutual exchange of promises with little or no transfer of tangible consideration. However, these instruments frequently involve a high degree of leverage and are very volatile. A relatively small movement in the underlying of a derivative contract may have a significant impact on the profit or loss of the Petroleum Fund. Over the counter ("OTC") derivatives may expose the Petroleum Fund to the risks associated with the absence of an exchange market on which to close out an open position. Investment managers are instructed to closely monitor the Petroleum Fund's exposure under derivative contracts as part of the overall management of the Petroleum Fund's market risk.

The Minister of Finance has approved the use of equity index futures, bond and interest rate futures and currency forward contracts under Annex 1, Amendment Number 9, 19 May 2017 of the Management Agreement between the Minister and the BCTL. A summary of financial assets held at financial position date is as follows:

	As at 31/ US		As at 31/12/2019 USD		
Financial assets - at fair value through profit or loss	Fair value	% of investment/ asset allocation	Fair value	% of net assets	
Fixed interest securities	0 021 242 460	50	7 012 000 405	47	
United States treasury notes	8,821,243,469	50 1	7,913,988,405		
Australian government bonds Japanese government bonds	174,392,524	1	160,769,292	1	
United Kingdom government bonds	156,225,246	1	153,334,562	_	
	168,103,912	_	163,907,059	1	
European government bonds	839,267,738	5	786,350,122	5 4	
Investment in private debt instruments (note 13)	615,700,000	4	671,313,500	4	
Other government bonds	335,039,985	2	343,804,473	2	
Total fixed interest securities	11,109,972,874	63	10,193,467,413	61	
Equity securities					
United States equities	4,159,886,734	24	4,102,660,412	25	
Australian equities	235,530,183	1	162,194,140	1	
Japanese equities	488,471,018	3	540,171,666	3	
United Kingdom equities	288,536,431	2	375,190,835	2	
European equities	959,240,798	6	1,020,485,247	6	
Equities from other countries	301,031,908	2	340,980,159	2	
Total equity securities	6,432,697,072	37	6,541,682,459	39	
Money market securities					
European treasury bills	3,066,927		<u>-</u>		
Total money market securities	3,066,927	<u>-</u>	<u> </u>	<u>-</u>	
Derivatives					
United States equity futures	<u>-</u>		1,065,700	<u>-</u>	
Total derivatives			1,065,700	<u> </u>	
Total financial assets at fair value through profit or loss	<u>17,545,736,873</u>	<u> 100</u>	16,736,215,572	100	
Financial liabilities – at fair value through profit or loss Derivatives					
Foreign currency forward contracts	30,255,631	100	225,813	100	
Total derivatives	30,255,631	<u>100</u>	225,813	100	
Total financial liabilities at fair value through profit or loss	30,255,631	<u> 100</u> _	225,813	<u> 100</u>	

## 14. Financial assets and financial liabilities at fair value through profit or loss (continued)

Transactions in financial assets which arise either from the investment of new funds, the periodic rebalancing of the investment portfolio or sales to generate cash for budgetary transfers, are summarized as follows:

	As at 31/12/2020 USD	As at 31/12/2019 USD
Financial assets and financial liabilities at fair value through	USD	USD
profit or loss		
Opening fair value	16,736,215,572	15,072,095,909
Purchases at cost (including the private debt purchases)	16,457,932,619	12,904,772,248
Proceeds from sales	(17,142,723,753)	(12,958,725,951)
Net gains on financial assets/financial liabilities at fair value through		
profit or loss	1,494,312,435	1,718,073,366
Closing fair value	17,545,736,873	16,736,215,572

The following table provides an analysis of financial instruments that are measured subsequent to initial recognition at fair value, grouped into levels 1 to 3 (see accounting policies below for definitions of the levels) based on the degree to which the fair value is observable.

			As a	t 31/12/2020 USD	
Financial assets	(L	ed market price evel 1)	Valuatio technique market observab inputs (Level 2	n Valuation e: technique: non-market le observable inputs	Total
Financial instruments designated at fair value thr profit or loss  Equity securities  Money market securities  Fixed interest securities (a)  Total	6,4 	32,697,072 3,066,927 94,272,874 130,036,873		- 615,700,000 = 615,700,000	
Financial liabilities Financial instruments designated at fair value through profit or loss Derivatives Total			),255,631) <b>),255,631)</b>		(30,255,631) (30,255,631)
Financial assets Financial instruments designated at fair value	Quoted mar price (Level 1)	tec n ket obs i	As at 31.  US cluation hnique: narket servable nputs evel 2)		Total
through profit or loss  Derivatives  Equity securities  Fixed interest securities (a)  Total	1,065 6,541,682 9,522,153 <b>16,064,902</b>	,459 ,913	- - - =	671,313,500 671,313,500	1,065,700 6,541,682,459 10,193,467,413 <b>16,736,215,572</b>
Financial liabilities Financial instruments designated at fair value through profit or loss Derivatives Total			(225,813) ( <b>225,813</b> )		(225,813) (225,813)

There were no transfers between levels for the year ended 31 December 2020 (2019: nil). There were no movements in all levels of instruments for the year ended 31 December 2020 (2019: nil). A detailed schedule of financial assets at fair value through profit or loss is at Note 24.

## 14. Financial assets and financial liabilities at fair value through profit or loss (continued)

The following table sets out the fair values and notional amounts of derivative assets and liabilities held by the Petroleum Fund as at the reporting date.

	As at 31/2	12/2020	As at 31/12/2019		
Derivative financial instruments	Fair value	Notional value	Fair value	Notional value	
	USD	USD	USD	USD	
Equity futures	-	-	1,065,700	13,912,141	
Foreign currency forward contracts  Total	(30,255,631)	1,672,444,286	(225,813)	370,794,647	
	(30,255,631)	1,672,444,286	<b>839,887</b>	384,706,788	

#### **Accounting policies**

#### Recognition

The Petroleum Fund recognizes a financial asset or a financial liability when, and only when, it becomes a party to the contractual provisions of the instrument.

As the Petroleum Fund's publicly traded financial assets are held within a business model whose objective is not to hold financial assets in order to collect contractual cash flows; or is achieved by both collecting contractual cash flows and selling the financial assets, all publicly traded financial assets are measured subsequently at fair value through profit or loss (FVTPL).

Purchases or sales of financial assets that require delivery of assets within the time frame generally established by regulation or convention in the marketplace (regular way trades) are recognized on the trade date, i.e., the date that the Petroleum Fund commits to purchase or sell the asset.

Financial assets and liabilities (initial measurement)

Financial assets and financial liabilities at fair value through profit or loss are recorded in the statement of financial position at fair value. All transaction costs for such instruments are recognized directly in profit or loss.

Derivatives embedded in other financial instruments are treated as separate derivatives and recorded at fair value if their economic characteristics and risks are not closely related to those of the host contract and the host contract is not itself classified as held for trading or designated as at fair value through profit or loss. Embedded derivatives separated from the host are carried at fair value with changes in fair value recognized in profit or loss.

#### Subsequent measurement

Financial assets and financial liabilities at fair value through profit or loss are recorded in the statement of financial position at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value of financial instruments is based on their quoted market prices at the statement of financial position date without any deduction for estimated future selling costs. Financial assets held or a liability to be issued are priced at current bid prices, while financial liabilities held and assets to be acquired are priced at current asking prices.

All changes to fair value, other than interest or dividend income, are recognized in the profit or loss as part of net gain from financial assets or liabilities at fair value through profit or loss. Interest and dividend income is presented separately from other fair value movements in the statement of profit or loss.

## Derecognition

A financial asset (or, where applicable, a part of a financial asset or a part of a group of similar financial assets) is derecognized when:

- Either the rights to receive cash flows from the asset have expired, or the Petroleum Fund has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass through' arrangement, and
- Either (a) the Petroleum Fund has transferred substantially all the risks and rewards of the asset or (b) the Petroleum Fund
  has neither transferred nor retained substantially all the risks and rewards of the asset but has transferred control of the
  asset.

## 14. Financial assets and financial liabilities at fair value through profit or loss (continued)

When the Petroleum Fund has transferred its rights to receive cash flows from an asset (or has entered into a pass through arrangement) and has neither transferred nor retained substantially all of the risks and rewards of the asset nor transferred control of the asset, the asset is recognized to the extent of the Petroleum Fund's continuing involvement in the asset. In that case, the Petroleum Fund also recognizes an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Petroleum Fund has retained.

The Petroleum Fund derecognizes a financial liability when the obligation under the liability is discharged, cancelled or expired.

#### Offsetting

The Petroleum Fund offsets financial assets and financial liabilities if the Petroleum Fund has a legally enforceable right to set off the recognized amounts and interests and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously.

Income and expenses are presented on a net basis only when permitted under IFRS.

#### Critical accounting estimates

The manner in which assets are valued can have a material effect on the financial position and profit of the Petroleum Fund. In order to assess the reliability and objectivity of the valuation process, the Petroleum Fund categorizes the method of valuation into three levels, as follows:

Level 1 (Quoted market price) fair value measurements are those derived from quoted prices in active markets for identical assets or liabilities. The Petroleum Fund does not adjust the quoted prices for these instruments.

Level 2 (Valuation technique: market observable inputs) fair value measurements are those derived from inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices). As level 2 investments include positions that are not traded in active markets and/or subject to transfer restrictions, valuations may be adjusted to reflect illiquidity and/or non-transferability which are generally based on available market information. Financial instruments that trade in markets that are not considered to be active but are valued based on quoted market prices, dealer quotations or alternative pricing sources supported by observable inputs are classified within level 2. The level 2 instruments include over-the-counter derivatives.

Level 3 (Valuation technique: non-market observable inputs) fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).

#### Ricks

## (a) Market risk

Market risk is the risk that changes in market prices, such as interest rates, equity prices, foreign exchange rates and credit spreads (not relating to changes in the obligor's/issuer's credit standing) will affect the Petroleum Fund's income or fair value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimizing the return.

The maximum risk resulting from financial instruments equals their fair value.

The Petroleum Fund's strategy for the management of market risks is driven by the Petroleum Fund's investment objectives, including diversification of its investment portfolio, by specifying benchmarks in individual investment mandates with risk limits defined by maximum or target tracking errors.

The Petroleum Fund's market risk is thus managed on a regular basis by the investment managers in accordance with these investment mandates.

#### (i) Equity price risk

Equity price risk is the risk of unfavorable changes in the fair values of equities or equity linked derivatives as the result of changes in the levels of equity indices and the value of individual shares. The equity price risk exposure arises from the Petroleum Fund's investments in equity securities and from equity linked derivatives. The Petroleum Fund manages this risk by investing in a variety of stock exchanges and by limiting exposure to any one company or issuing entity, excluding sovereign states, to 3% of net assets (consistent with Article 15.5a of the Petroleum Fund Law). The Petroleum Fund Law limits equity investments to no more than 5% of the share capital of a particular issuer (consistent with Article 15.3b of the Petroleum Fund Law).

Management's best estimate of the effect on the profit or loss for a year due to a reasonably possible change in equity indices, with all other variables held constant is indicated in the table below. There is no effect on 'other comprehensive income' as the Petroleum Fund has no assets classified as 'Financial assets at fair value through other comprehensive income' or designated hedging instruments. In practice, the actual trading results may differ from the sensitivity analysis below and the difference could be material. An equivalent decrease in each of the indices shown below would have resulted in an equivalent impact.

## 14. Financial assets and financial liabilities at fair value through profit or loss (continued)

The Petroleum Fund manages its exposure to equity price risk by analyzing the portfolio by industrial sector and country each month and benchmarking the performance of each sector/country to the MSCI World Index by considering the performance of the Petroleum Fund attributable to stock allocation, security selection and the interaction effect.

The following table summarizes the sensitivity of the Petroleum Fund's operating profit and net assets to price risk. The analysis is based on reasonably possible movements in the benchmark with all other variables held constant and the fair value of the Petroleum Fund's portfolio moving according to the movement in the benchmark. The reasonably possible movements in the risk variables have been determined based on the investment managers' best estimates having regard to a number of factors including historical levels of changes in market index, security prices and/or benchmark returns and interest rates. However, actual movements in the risk variables may be greater or less than anticipated due to a number of factors, including unusually large market shocks resulting from changes in the performance of the economies, markets and securities to which the variable is exposed. As a result, historic variations in risk variables are not a definitive indicator of future variations in the risk variables. The table below shows the impact on operating profit/net assets resulting from a 10% change in the price of equities.

	Price risk			
	Impact on profit/(loss) for the year Net assets			
	(-10.00%)	(+10.00%)		
31 December 2020	(643,269,707)	643,269,707		
31 December 2019	(654,168,246)	654,168,246		

The Petroleum Fund has determined that a fluctuation in equity prices of 10% is reasonably possible within a one year period based on historical movements in global equity markets.

#### (ii) Interest rate risk

Interest rate risk arises from the possibility that an investment's fair value or associated future cash flows will change due to a change in the absolute level of interest rates, in the spread between two rates, in the shape of the yield curve or in any other interest rate relationship.

The majority of interest rate exposure arises on investments in Fixed interest securities in the United States of America and, to a lesser extent, the rest of the developed world. Most of the Petroleum Fund's investments in Fixed interest securities carry fixed interest rates and mature within ten years.

The Petroleum Fund manages this risk by investing according to benchmarks with specified duration target and tracking error limit. The assets and the Petroleum Fund will re-price or mature within the following periods:

As at 31/12/2020

	USD							
FINANCIAL ASSETS	Statement of financial position	Non-interest sensitive	6 months or less	6 to 12 months	1 to 2 years	2 to 5 years	5 to 10 years	Over 10 years
Cash and cash equivalents	1,368,699,037	-	1,368,699,037	-	-	-	-	-
Other receivables	23,374,447	23,374,447	-	-	-	-	-	_
Financial assets at fair value through profit or loss Total assets	17,545,736,873 18,937,810,357	6,432,697,071 <b>6,456,071,518</b>	20,539,265 <b>1,389,238,302</b>		86,095,946 <b>86,095,946</b>	7,451,449,507 <b>7,451,449,507</b>	2,349,684,342 2,349,684,342	1,164,886,306 1,164,886,306
FINANCIAL LIABILITIES								
Payables	2,590,255	2,590,255	-	-	-	-	-	-
Financial liabilities at fair value through profit or loss	30,255,631	30,255,631	-	<u> </u>		-	-	<u>-</u>
Total liabilities	32,845,886	32,845,886		· <u>-</u>				

## 14. Financial assets and financial liabilities at fair value through profit or loss (continued)

As at 31/12/2019

	CSD .							
FINANCIAL ASSETS	Statement of financial position	Non-interest sensitive	6 months or less	6 to 12 months	1 to 2 years	2 to 5 years	5 to 10 years	Over 10 years
Cash and cash equivalents	940,852,534	-	940,852,534	-	-	-	-	-
Other receivables	32,565,093	32,565,093	-	-	-	-	-	-
Financial assets at fair value through profit or loss	16,736,215,572	6,543,053,973	13,745,465	33,755,798	158,437,247	6,629,771,970	2,203,437,416	1,154,013,703
Total assets	17,709,633,199	6,575,619,066	954,597,999	33,755,798	158,437,247	6,629,771,970	2,203,437,416	1,154,013,703
FINANCIAL LIABILITIES								

Payables	17,590,953	17,590,953	-	-	-	-	-	-
Financial liabilities at fair value								
through profit or loss	225,813	225,813	-	-	-	-	-	-
Total liabilities	17,816,433	17,816,433	-	-	_		_	

The following table summarizes the sensitivity of the Petroleum Fund's operating profit and net assets attributable to interest rate risk. The analysis is based on reasonably possible movements in the benchmark with all other variables held constant and the fair value of the Petroleum Fund's portfolio moving according to the movement in the benchmark. The reasonably possible movements in the risk variables have been determined based on the investment managers' best estimates, having regard to a number of factors, including historical levels of interest rates. However, actual movements in the risk variables may be greater or less than anticipated due to a number of factors, including unusually large market shocks resulting from changes in the performance of the economies, markets and securities to which the variable is exposed. As a result, historic variations in risk variables are not a definitive indicator of future variations in the risk variables.

	Interest rate risk				
	Impact on profit/(loss) for the year / Net assets				
	(-1.00%)	(+1.00%)			
31 December 2020	609,160,412	(609,160,412)			
31 December 2019	571,871,607	(571,871,607)			

The Petroleum Fund has determined that a fluctuation in interest rates of  $\pm 1\%$  /  $\pm 1\%$  is reasonably possible within a given one year time period, given the economic environment in which the Petroleum Fund operates.

In determining the impact of an increase/decrease in net assets arising from market risk, management of the Petroleum Fund has considered prior period and expected future movements of the portfolio based on market information.

#### (iii) Currency risk

Currency risk is the risk that the value of a financial instrument will fluctuate due to changes in foreign exchange rates.

The Petroleum Fund invests in fixed income and equity securities that are denominated in currencies other than the United States dollar. Accordingly, the Petroleum Fund's assets may be affected favorably or unfavorably by fluctuations in currency rates. Therefore, the Petroleum Fund is necessarily subject to foreign exchange risks. The Petroleum Fund's assets are 88% (2019: 77%) in US dollars, therefore exposure to currency movements are limited.

The assets of the Petroleum Fund to which the Petroleum Fund had significant currency exposure at financial position date, reported in United States dollar equivalents, are set out in the following table:

# 14. Financial assets and financial liabilities at fair value through profit or loss (continued)

			A	1s at 31/12/2020 USD			
	USD	EUR	AUD	GBP	JPY	Other Currencies	Total
Cash and cash equivalents	1,345,879,154	8,823,087	1,029,398	1,433,987	4,357,310	7,176,101	1,368,699,037
Equity securities	4,159,886,732	625,778,239	235,530,183	288,536,431	488,471,018	634,494,469	6,432,697,072
Money market securities	-	3,066,927	-	-	-	-	3,066,927
Fixed interest securities at FVTPL	9,436,943,469	487,215,772	174,392,524	168,103,912	156,225,246	687,091,951	11,109,972,874
Receivables	3,701,996	2,379,796	313,799	1,035,591	1,085,418	14,857,847	23,374,447
Payables	(2,590,255)				<u>-</u> _		(2,590,255)
Total physical exposure	14,943,821,096	1,127,263,821	411,265,904	459,109,921	650,138,992	1,343,620,368	18,935,220,102
Forward exchange contracts							
- buy foreign currency	1,672,444,286	-	-	-	-	-	1,672,444,286
- sell foreign currency		(495,655,300)	(176,033,026)	(184,225,181)	(156,134,705)	(690,651,705)	(1,702,699,917)
Total derivative exposure	1,672,444,286	(495,655,300)	(176,033,026)	(184,225,181)	(156,134,705)	(690,651,705)	(30,255,631)
Total net exposure	16,616,265,382	631,608,521	235,232,878	274,884,740	494,004,287	652,968,663	18,904,964,471
Exposure (% of net assets)	87.89%	3.34%	1.24%	1.46%	2.62%	3.45%	100%

			A	s at 31/12/2019			
				USD			
						Other	
	USD	EUR	AUD	GBP	JPY	Currencies	Total
Cash and cash equivalents	917,100,165	4,216,426	1,147,967	1,482,490	1,036,704	15,868,782	940,852,534
Equity securities	4,102,660,412	685,981,659	162,194,140	375,190,835	540,171,666	675,483,747	6,541,682,459
Fixed interest securities at FVTPL	8,585,301,905	448,894,998	160,769,292	163,907,059	153,334,562	681,259,597	10,193,467,413
Receivables	4,610,600	7,077,997	339,082	940,323	6,732,494	12,864,597	32,565,093
Payables	(3,368,504)		(12,124,586)	(11,265)	(1,352,609)	(733,989)	(17,590,953)
Total physical exposure	13,606,304,578	1,146,171,080	312,325,895	541,509,442	699,922,817	1,384,742,734	17,690,976,546
Futures	1,065,700	-	-	-	-	-	1,065,700
Forward exchange contracts							
- buy foreign currency	105,575,923	111,359,243	30,405,337	24,856,379	28,617,268	69,980,497	370,794,647
- sell foreign currency	(105,825,515)	(89,139,627)	(16,560,846)	(32,844,386)	(13,274,686)	(113,375,400)	(371,020,460)
Total derivative exposure	816,108	22,219,616	13,844,491	(7,988,007)	15,342,582	(43,394,903)	839,887
Total net exposure	13,607,120,686	1,168,390,696	326,170,386	533,521,435	715,265,399	1,341,347,831	17,691,816,433
Exposure (% of net assets)	76.92%	6.60%	1.84%	3.02%	4.04%	7.58%	100%

## 14. Financial assets and financial liabilities at fair value through profit or loss (continued)

The Petroleum Fund is primarily exposed to the Euro, Australian Dollar, Pound Sterling and Japanese Yen.

The following table details the Petroleum Fund's sensitivity to a 10% increase and decrease in the United States dollar against the relevant foreign currencies. 10% is the sensitivity rate used when reporting foreign currency risk internally to key management personnel and represents management's assessment of the reasonably possible change in foreign exchange rates. The sensitivity analysis includes only outstanding foreign currency denominated monetary items and adjusts their translation at the period end for a 10% change in foreign currency rates. The sensitivity analysis includes cash and cash equivalents, interest receivable and qualifying instruments. A negative number below indicates a decrease in profit where the United States dollar strengthens 10% against the relevant currency. For a 10% weakening of the United States dollar against the relevant currency, there would be a comparable impact on the profit, and the balances below would be a positive. The analysis presumes that all other variables, in particular interest rates, remain constant.

	As at 31/12/2020 USD	As at 31/12/2019 USD
EUR impact	(63,160,852)	(116,839,070)
AUD impact	(23,523,288)	(32,617,039)
GBP impact	(27,488,474)	(53,352,144)
JPY impact	(49,400,429)	(71,526,540)
Other currencies impact	(65,296,866)	(134,134,783)
Total currencies impact	(228,869,909)	(408,469,576)

This is mainly attributable to the exposure outstanding on all relevant foreign currencies relating to cash and cash equivalents, interest receivable and qualifying instruments in the Petroleum Fund at the end of the reporting period.

#### (b) Credit risk

Credit risk is the risk of loss that arises from a counterparty failing to meet their contractual commitments in full and on time or from losses arising from the change in value of a traded financial instrument as a result of changes in the credit risk on that instrument. It arises principally from Fixed interest securities held and also from derivative financial instruments, cash and cash equivalents, balances due from brokers and receivables from reverse repurchase agreements. For risk management reporting purposes the Petroleum Fund considers and consolidates all elements of credit risk exposure reflecting the fact that the main concentration to which the Petroleum Fund is exposed arises from the Petroleum Fund's investments in Fixed interest securities.

#### (i) Credit risk management

Article 15 of the Petroleum Fund Law provides broad constraints on the extent of credit risk that can be taken by the Petroleum Fund. To qualify as an eligible investment, debt must have a credit quality of at least equal to investment grade, while deposits are only held with financial institutions with a credit rating of at least investment grade. The investment grade rating reflects the credit rating agencies' assessment of capacity by the issuer to pay. Higher ratings reflect lower credit risk associated with the bonds. Credit risk is also managed by limiting exposure to any one company or issuer (except for a sovereign state) to 3% of the total value of the Petroleum Fund. The limits are reflected in the underlying investment mandates with managers and are monitored by the BCTL. The Petroleum Fund's maximum exposure to credit risk at reporting date in relation to each class of financial asset is the carrying amount of those assets as indicated in the statement of financial position.

The asset allocation weights for the financial market investments were 60% fixed interest securities, 35% global equities and 5% cash as at the end of December. The allocations were adjusted to separate the Fund's investment in private debt, which is limited to 5% of the total value of the Fund under the Petroleum Fund Law. The IAB regularly monitors and reviews the strategic asset allocation between asset classes with consideration to the desired risk profile of the Petroleum Fund. The current strategic asset allocation is continually monitored and discussed at the IAB meetings and the Board considers this to be an appropriate level given the current investment horizon of the Petroleum Fund.

The mandate in the Operational Management Agreement prescribes that the performance of the Petroleum Fund shall be measured against benchmark indexes for a series of mandates, restricts the permissible investment universe to highly rated financial instruments and establishes tracking error limits restricting the permissible deviation of the portfolio investments from the benchmark for each mandate. The maximum loss that the Petroleum Fund would suffer from the default of a single issuer is the amount disclosed below with respect to investments in treasury notes issued by the United States Government and equity securities traded on developed market exchanges.

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## 14. Financial assets and financial liabilities at fair value through profit or loss (continued)

#### (ii) Concentration of credit exposure

Concentrations of credit risk arise when a number of financial instruments or contracts are entered into with the same counterparty, or when a number of counterparties are engaged in similar business activities or activities in the same geographic regions, or have similar economic features that would cause their ability to meet contractual obligations to be similarly affected by changes in economic, political or other conditions.

The allocation to each sovereign issuer is constantly monitored and any actual or anticipated changes to the credit risk profile of each issuing country will be considered in the allocation. Securities issued by US Treasury was 52% (2019: 50%) of the Petroleum Fund's Investments measured at fair value through profit or loss. Diversification within the non-US sovereign bond mandate is achieved through limiting each country to a maximum weight of 10% of the index and the Euro zone weight to 30%.

The Petroleum Fund's significant end of year concentrations of credit exposure by the industry or country of the issuer were as follows:

	As at 31/12/2020	As at 31/12/2019
	USD	USD
Fixed interest securities and money market securities		
Financial assets at FVTPL - Sovereign issuers:		
United States Government	8,821,243,469	7,913,988,405
Australia Government	174,392,524	160,769,292
Japan Government	156,225,246	153,334,562
United Kingdom Government	168,103,912	163,907,059
European Governments	842,334,665	786,350,122
Timor-Leste Government (note 13)	615,700,000	671,313,500
Governments of other countries	335,039,985	343,804,473
	<u>11,113,039,801</u>	10,193,467,413

#### (iii) Credit exposure by credit rating

The following table presents an analysis of the Petroleum Fund's debt securities classified according to the Standard & Poor's credit rating of the issuer as at each period end, and where the securities are not rated by Standard & Poor, the fund opts for the rating from Moody. AAA is the highest rating possible and indicates that the entity has an extremely strong capacity to pay interest and principal. AA is a high grade rating, indicating a very strong capacity, and A is an upper medium grade, indicating a strong capacity to pay interest and principal. BBB is the lowest investment grade rating, indicating a medium capacity to pay interest and principal. Ratings lower than AAA can be modified by + or - signs to indicate relative standing within the major categories.

	As at 31/12/2020	As at 31/12/2019
	USD	USD
International fixed interest securities and money market securities		
Standard & Poor's / Moody's credit rating		
AAA / Aaa	9,678,885,428	8,770,264,585
AA / Aa2	463,936,566	417,140,018
A / A2	158,925,257	157,260,705
BBB / Baa2	195,592,550	177,488,605
Not rated	615,700,000	671,313,500
Total	11.113.039.801	10.193.467.413

#### (iv) Credit exposure by counterparty as a percentage of the Petroleum Fund's capital

No more than 1% (2019: 1%) of assets of the Petroleum Fund is exposed to a single sovereign issuer, other than the United States Government, all of which sovereigns are developed nations. The assets exposed to the United States Government amounted to 46% (2019: 45%) of the Petroleum Fund's capital. A change in the credit ratings of the Petroleum Fund's counterparties may have an impact on the future financial performance of the Petroleum Fund.

## 14. Financial assets and financial liabilities at fair value through profit or loss (continued)

#### (c) Derivative financial instruments

The Petroleum Fund Law sets limits on the use of derivative financial instruments whereby derivatives may only be used to reduce the risk to the Petroleum Fund or to efficiently facilitate the desired exposure to an asset and whereby the risk arising from the use of the derivatives may not be higher than would result from direct exposure to the underlying assets. As such, the objective of using derivative instruments is to reduce financial risks and costs associated with implementing the investment strategy. The Petroleum Fund does not enter into or trade financial instruments, including derivative financial instruments, for speculative purposes. The individual investment mandates set by the IAB include rules for the use of derivatives within these statutory requirements.

Forward and futures contracts are contractual agreements to buy or sell a specified financial instrument at a specific price and date in the future. Forwards are customized contracts transacted in the OTC market. Futures contracts are transacted in standardized amounts on regulated exchanges and are subject to daily cash margin requirements. The main differences in the risk associated with forward and futures contracts are credit risk and liquidity risk. The Petroleum Fund has credit exposure to the counterparties of forward contracts. The credit risk related to futures contracts is considered minimal because the exchange ensures that these contracts are always honored. Forward contracts are settled gross and, therefore, considered to bear a higher liquidity risk than the futures contracts which are settled on a net basis. Both types of contracts result in market risk exposure.

#### 15. Financial liabilities

Financial liabilities are amounts owed by the Petroleum Fund to third parties. One type of financial liability is the amount payable for securities purchased.

Another type of financial liabilities arises when derivative contracts are "out of the money", that is, an amount must be paid at the due date of the derivative contract. As a derivative is often used by the Petroleum Fund for hedging, an "out of the money" derivative may be indicative of a corresponding asset having risen in value.

There were financial instruments liabilities designated at fair value through profit or loss as at 31 December 2020 of \$30,255,631 (2019: \$225,813).

## Accounting policy

Classification

The Petroleum Fund's financial liabilities are categorized as at fair value through profit or loss, unless otherwise noted.

Financial liabilities that are not at fair value through profit or loss include balances payable to financial intermediaries for the purchase of securities and other short term payables.

## PART IV: NOTES TO THE STATEMENT OF CHANGES IN CAPITAL

The statement of changes in capital details the change in the net wealth of the Petroleum Fund over the year. Typically, this includes contributions to the Petroleum Fund by participants in the petroleum sector, withdrawals by the government, refunds of taxation and the net profit or loss from the Petroleum Fund's investments.

## 16. Capital receipts and payments

Capital receipts and payments reflect moneys received by the Petroleum Fund pursuant to the Petroleum Fund Law and amounts transferred to the State budget pursuant to an appropriation of Parliament.

Capital receipts are classified in the Petroleum Fund Law as follows:

- Article 6.1(a) receipts are the gross revenues, including tax revenue, of Timor-Leste from any petroleum operations.
- Article 6.1(b) receipts are amounts received by the National Petroleum Authority pursuant to the Timor Sea Treaty.
- Article 6.1(c) receipts are amounts received from the investment of the capital of the Petroleum Fund.
- Article 6.1(e) include any other petroleum-related receipts.

## 16. Capital receipts and payments (continued)

The following table shows the capital receipts and payments of the Petroleum Fund.

# Year ended 31/12/2020

			USD		
	Article 6.1(a)	Article 6.1(b)	Article 6.1(e)	To Consolidated	
Month	receipts	receipts	other receipts	Fund	Total
January	22,279,629	36,593,454	-	-	58,873,083
February	21,274,686	21,041,035	5,385,600	-	47,701,321
March	27,136,370	47,400,097	-	-	74,536,467
April	1,529,577	22,278,580	-	(150,000,000)	(126,191,843)
May	7,378,624	23,211,926	-	(100,000,000)	(69,409,450)
June	7,020,803	2,087,463	2,224,838	-	11,333,104
July	6,613,045	2,386,681	-	-	8,999,726
August	11,993,140	2,351,296	-	(169,500,000)	(155, 155, 564)
September	12,873,926	1,473,636	5,836,800	-	20,184,362
October	8,831,529	2,471,737	-	(116,800,000)	(105,496,734)
November	10,601,250	-	-	-	10,601,250
December	7,977,043	3,280,368	2,617,282	(350,000,000)	(336,125,307)
Totals	145,509,622	164,576,273	16,064,520	(886,300,000)	(560,149,585)
Total Article 6.1			326,150,415		_

#### Year ended 31/12/2019 USD

<b>3</b> 4	Article 6.1(a)	Article 6.1(b)	(-)	To Consolidated	T
Month	receipts	receipts	other receipts	Fund	Total
January	30,664,900	31,432,164	924	-	62,097,988
February	31,812,936	62,635,919	-	-	94,448,855
March	36,840,678	46,888,888	-	-	83,729,566
April	30,963,695	56,625,995	(924)	-	87,588,766
May	16,387,734	57,914,515	-	(120,000,000)	(45,697,751)
June	24,083,778	6,490,765	-	(100,000,000)	(69,425,457)
July	23,169,715	22,019,041	-	-	45,188,756
August	25,742,987	26,286,755	-	(100,000,000)	(47,970,258)
September	37,625,186	31,852,670	-	(100,000,000)	(30,522,144)
October	15,897,802	51,907,753	-	-	67,805,555
November	17,956,338	7,657,433	-	(248,000,000)	(222,386,229)
December	36,242,023	27,154,798		(301,000,000)	(237,603,179)
Totals	327,387,772	428,866,696		(969,000,000)	(212,745,532)
<b>Total Article 6.1</b>			756,254,468		

## Accounting policies, estimates, assumptions, judgements and risks

Capital

Judgments have been made as to whether certain transactions should be recognized as capital or revenue.

Petroleum Fund gross receipts

The Petroleum Fund Law requires certain parties to deposit taxes and other petroleum related payments payable to the Government of Timor-Leste directly into the Petroleum Fund. The Petroleum Fund recognizes these and other transactions as follows:

- Payments made as Petroleum Fund receipts in accordance with Article 6.1(a) are recognized as increases in the statement of changes in capital of the Petroleum Fund.
- Payments made by the Designated Authority in accordance with Article 6.1(b) are recognized as increases in the statement of changes in capital of the Petroleum Fund.

## 16. Capital receipts and payments (continued)

- Income earned by the Petroleum Fund from the investment of its assets is recognized in the statement of profit or loss and other comprehensive income in accordance with Article 6.1(c).
- It is noted that the main source of capital receipts currently relates to the oil revenues generated from the Bayu-Undan Field for which gas production is expected to be exhausted around 2022. On 6 March 2018, the governments of Timor-Leste and Australia signed a new Maritime Boundaries Treaty, and in the same year, negotiations between the governments of Timor-Leste, Australia and the Sunrise Joint Venture on the new Greater Sunrise Production Sharing Contract commenced. It is expected that the production from the new Greater Sunrise field will start in 2026. Payments received by Timor-Leste relating directly to Petroleum Fund resources not covered in Article 6.1 (a) to (d) of the Petroleum Fund Law are recognized as increases in the statement of changes in capital of the Petroleum Fund in accordance with Article 6.1(e).
- Management fees paid from the gross receipts of the Petroleum Fund pursuant to Article 6.2 are recognized in the statement of profit or loss and other comprehensive income.
- Contractors pay both Corporate Income Tax (CIT) and Supplemental Petroleum Tax (SPT) in advance based upon forecast financial information. Where the amount of tax based upon actual financial information is less than the amount paid based upon forecast, an overpayment of tax may occur. In order to verify and validate the overpayment of taxes claimed by contractors, the Directorate General of Tax Authority conducts an audit exercise to verify the amount of the overpayment claimed by a contractor. The overpayment amount of taxes to be refunded is determined after the audit inspection is completed. It is possible that future tax refunds might be paid out in the upcoming years from the Petroleum Fund. Refunds of taxation made pursuant to Article 10 are recognized as reductions in the statement of changes in capital of the Petroleum Fund.

Transfers to the Consolidated Fund

The National Government of República Democrática de Timor-Leste ("the Consolidated Fund") comprises:

- · Central government ministries, and
- Autonomous agencies under significant control of Ministry of Finance.

Transfers to the Consolidated Fund are appropriations approved by the National Parliament of Timor-Leste. All transfers to the Consolidated Fund are authorized and recognized when paid to the Consolidated Fund.

## Objectives of managing capital

The Petroleum Fund is a mandatory financial reserve established with the objective of allocating financial wealth obtained from natural resources fairly and equitably between current and future generations of Timor-Leste citizens. The Petroleum Fund's capital structure consists solely of paid in capital derived from petroleum receipts and other sources as described in Note 16. The Petroleum Fund Law requires the Government to annually calculate Estimated Sustainable Income (ESI) which is defined as the maximum amount that can be appropriated from the Petroleum Fund in a fiscal year and leave sufficient resources in the Petroleum Fund for an amount of equal real value to be appropriated in all later fiscal years. The ESI calculation is submitted with the annual budget to Parliament who are required to take the ESI into consideration when determining the amount of capital to be appropriated from the Petroleum Fund. Transfers in excess of the ESI are permitted subject to certain provisions in the Petroleum Fund Law being satisfied.

There has been no change during the year in these objectives and policies for managing capital and the Petroleum Fund has complied with all legislative requirements relating to the management of the Petroleum Fund's capital.

## PART V: NOTES TO THE STATEMENT OF CASH FLOWS

The statement of cash flows, also known as the cash flow statement, presents the movement in cash flows over the period of 1 January to 31 December as classified under operating and financing activities.

Cash flow generally means cash movements in the Petroleum Fund's bank accounts and movements in short term investments that are highly liquid and involve very low risk of change in value.

Cash flow from operating activities presents the movement in cash during the year relating to the Petroleum Fund's revenue generating activities of the Petroleum Fund, namely investing in securities.

Cash flow from financing activities includes the movement in cash flow resulting from receipts into the Petroleum Fund deposited by participants in the exploitation of petroleum resources and transfers out of the Petroleum Fund to the Consolidated Fund or to refund tax.

For the purposes of the statement of cash flows, cash and cash equivalents comprise balances with an original maturity of less than 90 days.

#### 17. Reconciliation of net cash flows

	Year ended 31/12/2020 USD	Year ended 31/12/2019 USD
Profit/(loss) for the year	1,773,297,623	2,100,923,843
Working capital adjustments:		
Increase in financial assets at fair value through profit or loss	(749,454,983)	(992,580,350)
Increase in receivables	(22,480,556)	(28,532,996)
(Decrease)/increase in accounts payable	(720,787)	600,079
Decrease in payables for securities purchased	(14,279,912)	(2,365,644)
Net cash provided by operating activities	<u>986,361,385</u>	1,078,044,932

#### Accounting policy

Cash inflows from investments are presented net of withholding taxes, when applicable.

#### PART VI: NON-FINANCIAL DISCLOSURES

#### 18. Personnel

The Petroleum Fund did not employ any personnel during the year (2019: nil). The BCTL as operational manager of the Petroleum Fund employs personnel as does the Ministry of Finance, the executive of the Petroleum Fund.

## 19. Contingent assets, contingent liabilities and commitments

There were no contingent assets, contingent liabilities or commitments as at 31 December 2020 (2019: nil).

## 20. Related parties

The management of the fund spreads the decision-making process across various stakeholders to ensure prudent management with checks and balances.

The Government, represented by the Minister of Finance, is responsible for the overall management and investment strategy of the Petroleum Fund. The Minister of Finance is considered Key Management Personnel of the Fund. No remuneration was paid to the Ministry of Finance or the Minister of Finance by the Petroleum Fund.

The Central Bank of Timor-Leste (BCTL) is the operational manager responsible for operational management of the Petroleum Fund by implementing the investment policy determined by Minister of Finance. In doing so, the Central Bank ensures that the management of the Petroleum Fund is in line with the legal framework. BCTL management is the ultimate responsible for daily operations.

The Investment Advisory Board is responsible for developing performance benchmarks for the Minister of Finance and advises the Minister on investment policy and the management of the Fund providing advice to Minister of Finance (art 17 of the PF Law). Under article 17.1, the dispatch appointing the Members of the IAB shall determine their remuneration, in conformity with the applicable legislation. The IAB members shall have no income, but they will be entitled to the sitting allowances per meeting. Please see IAB expenses in the table under BCTL.

## 20. Related parties (continued)

The following parties are considered related parties of the Petroleum Fund:

The ultimate controlling party of the Petroleum Fund is the Democratic Republic of Timor-Leste ('the Government').

#### The Government

The Government, as stipulated in Article 11.1 of the Petroleum Fund Law, is responsible for the overall management of the Petroleum Fund.

The Petroleum Fund receives receipts on behalf of the Government as disclosed in Note 16. The Government, through the State budget, meets the expenses of the Petroleum Fund, including the audit fee, not otherwise covered by the management fee.

The Petroleum Fund makes transfers to the Consolidated Fund of Timor-Leste (pursuant to Article 7 of the Petroleum Fund Law) as disclosed in the statement of changes in capital.

#### Banco Central de Timor-Leste (BCTL)

The BCTL is the operational manager of the Petroleum Fund, in accordance with Article 11.3 of the Petroleum Fund Law.

This means that the operational manager is, in particular, responsible for oversight of the investment managers and service providers, collection of dividends, interest and proceeds of matured securities, the exercise of options and, in general, for any other operation concerning the day-to-day administration of the securities and other assets and liabilities of the Petroleum Fund.

The management fee covers the operational management of the Petroleum Fund which is undertaken by the BCTL in accordance with the provisions of Article 11.3 of the Petroleum Fund Law. The audit fee and expenses incurred within the Ministry of Finance relating to the overall management of the Petroleum Fund are met directly from the State budget. The management fee paid to the BCTL for the period was composed as follows:

	Year ended 31/12/2020	<i>Year ended</i> 31/12/2019
	USD	USD
Custody and external management services	8,815,267	8,501,090
IAB expenses	241,552	248,195
BCTL operating expenses	5,972,837	5,074,140
Total management fees	15,029,656	13,823,425
Other expenses	1,989,365	1,015,865
Total	<u> 17,019,021</u>	14,839,290

BCTL were entitled to receive a management fee for its respective services within the parameters of Annex 2 of the Operational Management Agreement Actualization dated 20 April 2015. In the current year, these fees amount to an aggregate of 0.08% (2019: 0.08%) per annum of the net assets of the Petroleum Fund. Management fees are payable monthly in arrears. Total management fees for the year amounted to US\$15,029,656 (2019: US\$13,823,425).

The management fees payable as at 31 December 2020 is US\$2,590,255 (2019: US\$3,311,041).

#### **National Petroleum and Minerals Authority**

The National Petroleum and Minerals Authority manages the revenues from the production sharing contracts between Timor-Leste and Australia and transfers the Timor-Leste portion to the Petroleum Fund as Article 6.1(b) receipts as disclosed in Note 16.

#### Timor Gap E.P.

Timor Gap E.P. is the national petroleum company and has the mandate to conduct oil and gas business on behalf of the Timor-Leste Government. Timor Gap is building an integrated oil and gas company to cover upstream and downstream activities, as well as services to the sector.

During the 2019 financial year certain subsidiaries of Timor Gap E.P. issued debt instruments with a face value of \$650,000,000 which were bought by the Petroleum Fund. Further details of these transactions are set out in Note 13.

## 21. Encumbrances on the Petroleum Fund

Encumbrances on the assets of the Petroleum Fund

In accordance with Article 20 of the Petroleum Fund Law, burdens or encumbrances, in any of their forms, may be put by way of contract or agreement on Petroleum Fund assets, up to a limit of 10% of the total value of the Petroleum Fund at the time the burden or encumbrances is put, provided that this is in compliance with the principles in general rules for creating, issuing and managing public debt.

During the 2020 financial year and as at the financial position date, there were no encumbrances or burdens on the assets of the Petroleum Fund.

## 22. Application of new and revised IFRS

This note provides information about new IFRS that have been adopted and forthcoming standards that are not yet effective.

#### 22.1. New and revised IFRS applied with no material effect on the financial statements

Adopted all the new and revised IFRS that are relevant with no material impact.

#### 22.2. Adoption of IFRS that are not yet effective

Certain new accounting standards and interpretations have been published that are not mandatory for 31 December 2020 reporting periods and have not been early adopted by the Petroleum Fund. These standards are not expected to have a material impact on the entity in the current or future reporting periods and on foreseeable future transactions.

## 23. Subsequent events

No subsequent events have occurred after the reporting date but prior to the issuance of the financial statements that have a material effect on the financial statements and therefore require adjustment or disclosure in the statements.

## PART VII: SCHEDULE OF FINANCIAL ASSETS

# 24. Schedule of financial assets valued through profit or loss

## (a) Fixed interest securities – issued by sovereign states and supranationals

Security	Nominal	Fair Value	Security	Nominal	Fair Value
Australia 2.25% 21Nov22	8,500,000	6,845,982	Canada 4.00% 01Jun41	7,355,000	8,903,284
Australia 5.75% 15Jul22	23,041,000	19,814,817	Canada 3.50% 01Dec45	8,331,000	9,904,806
Australia 2.75% 21Apr24	14,120,000	11,907,473	Canada 2.75% 01Dec48	2,825,000	3,051,848
Australia 2.75% 21Nov27	6,573,000	5,821,959	Canada 2.75% 01Dec64	2,545,000	3,053,525
Australia 4.75% 21Apr27	18,713,000	18,358,294			163,260,938
Australia 2.75% 21Nov28	6,500,000	5,803,796			
Australia 2.75% 21Nov29	8,497,000	7,637,256			
Australia 3.25% 21Apr29	58,594,000	54,452,197	Denmark 3.00% 15Nov21	47,992,000	8,163,040
Australia 4.50% 21Apr33	12,640,000	13,628,003	Denmark 1.50% 15Nov23	127,580,200	22,296,519
Australia 3.75% 21Apr37	11,289,000	11,680,180	Denmark 7.00% 10Nov24	12,882,000	2,766,809
Australia 3.00% 21Mar47	19,272,000	18,442,567	Denmark 1.75% 15Nov25	88,128,000	16,184,568
		174,392,524	Denmark 1.75% 15Nov25	24,030,000	4,413,071
			Denmark 0.50% 15Nov27	111,174,000	19,582,844
Austria 2.10% 20Sep17	124,000	343,017	Denmark 0.50% 15Nov29	12,000,000	2,141,623
Austria 3.50% 15Sep21	1,353,000	1,719,821	Denmark 4.50% 15Nov39	144,817,200	45,703,890
Austria 3.65% 20Apr22	336,000	444,673			121,252,364
Austria 1.75% 20Oct23	274,000	359,548			
Austria 0.00% 15Jul24	725,000	908,712		4,165,000	5,631,502
Austria 4.85% 15Mar26	2,438,000	3,976,594	Finland 2.00% 15Apr24		
Austria 0.50% 20Apr27	60,000	78,981		5,620,000	3,053,438
Austria 6.25% 15Jul27	195,000	354,836	Finland 0.50% 15Sep29		
Austria 0.75% 20Feb28	12,925,000	17,432,073	E: 1 12 (20) 041 142	250,000	490,394
Austria 0.50% 20Feb29	2,764,000	3,679,028	Finland 2.62% 04Jul42		
Austria 2.40% 23May34	1,255,000	2,111,755			9,175,334
Austria 3.80% 26Jan62	153,000	463,515			7,173,334
Austria 4.15% 15Mar37	1,624,000	3,463,508	France 1.75% 25Nov24	3,579,500	4,812,175
Austria 3.15% 20Jun44	1,035,000	2,236,220	France 0.75% 25May28	3,456,000	4,653,101
		37,572,281	France 0.75% 25Nov28	9,190,000	12,379,325
			France 0.50% 25May29	8,326,000	11,053,311
			France 5.75% 25Oct32	1,126,000	2,390,342
Belgium 0.50% 22Oct24	2,845,000	3,643,813	France 1.25% 25May34	1,100,000	1,613,509
Belgium 4.50% 28Mar26	1,034,000	1,654,795	France 4.75% 25Apr35	1,413,000	3,021,719
Belgium 0.80% 22Jun27	2,640,000	3,540,615	France 1.25% 25May36	809,000	1,198,521
			France 4.00% 25Oct38	798,124	1,689,131
Belgium 0.80% 22Jun28	4,782,000	6,469,029	France 1.75% 25Jun39	1,970,000	3,208,184
Belgium 5.50% 28Mar28	559,000	1,018,353	France 2.00% 25May48	8,765,000	15,766,063
Belgium 0.90% 22Jun29	770,000	1,056,272	France 4.00% 25Apr55	1,214,000	3,261,183
Belgium 5.00% 28Mar35	4,143,800	9,027,375	France 1.75% 25May66	626,000	1,175,625
Belgium 4.25% 28Mar41	3,622,400	8,215,945	1 tance 1.7570 2511ay00	020,000	1,175,025
Belgium 3.75% 22Jun45	892,000	2,026,032			66,222,189
		36,652,229			, ,
			Germany 0.25% 15Feb29	691,000	911,050
Canada 1.50% 01Aug21	8,500,000	6,768,085	Germany 0.00% 15Aug30	22,000,000	28,438,159
Canada 1.50% 01May22	900,000	720,811	Germany 4.75% 04Jul34	306,100	658,252
Canada 1.50% 01Jun23	23,230,000	18,815,344	Germany 2.50% 04Jul44	4,080,039	8,443,625
Canada 1.50% 01Sep24	14,165,000	11,656,276	•		
Canada 2.25% 01Mar24	39,380,000	33,076,819	Germany 2.50% 15Aug46	4,224,000	8,968,819
Canada 2.50% 01Jun24	5,500,000	4,649,224			47,419,907
Canada 0.62% 16Sep25	20,000,000	15,688,343			
Canada 1.50% 01Jun26	7,592,000	6,299,856	Hong Kong 2.46% 04Aug21	10,750,000	1,419,833
Canada 2.25% 01Jun29	16,626,000	14,857,123	Hong Kong 1.16% 18May22	33,000,000	4,321,829
Canada 5.75% 01Jun33	11,447,000	14,244,391	Hong Kong 2.49% 22Aug28	10,350,000	1,544,198
					7,285,860
Canada 5.00% 01Jun37	9,100,000	11,571,203	Ireland 1.00% 15May26	2,210,000	2,955,923

## 24. Schedule of financial assets valued through profit or loss (continue)

Security	Nominal	Fair Value	Security	Nominal	Fair Value
Ireland 1.10% 15May29	1,265,000	1,759,159	Japan 1.90% 20Sep42	164,350,000	2,077,351
Ireland 0.40% 15May35	1,885,000	2,482,812	Japan 0.30% 20Jun46	656,000,000	5,999,585
Ireland 1.70% 15May37	610,000	964,275	Japan 0.80% 20Sep47	72,850,000	748,268
Ireland 1.50% 15May50	298,000	493,059	Japan 0.40% 20Mar50	160,000,000	1,455,626
		8,655,228	Japan 2.00% 20Mar52	91,750,000	1,229,057
			Japan 0.40% 20Mar56	189,300,000	1,680,161
Italy 0.35% 01Nov21	3,830,000	4,724,368			156,225,246
Italy 0.90% 01Aug22	3,159,000	3,961,878			
Italy 1.35% 15Apr22	12,130,000	15,226,397	Netherlands 1.75% 15Jul23	3,238,700	4,245,968
Italy 0.05% 15Jan23	7,105,000	8,777,220	Netherlands 0.00% 15Jan24	5,267,000	6,586,472
Italy 0.65% 15Oct23	9,000,000	11,333,665	Netherlands 5.50% 15Jan28	2,444,000	4,463,752
Italy 1.85% 15May24	6,800,000	8,931,331	Netherlands 0.25% 15Jul29	645,000	845,251
Italy 3.75% 01Sep24	2,795,000	3,958,866	Netherlands 2.50% 15Jan33	3,327,000	5,640,324
Italy 0.35% 01Feb25	5,698,000	7,134,962	Netherlands 0.50% 15Jan40	2,871,000	4,056,835
Italy 1.45% 15May25	14,000,000	18,342,866	Netherlands 2.75% 15Jan47	205,000	455,355
Italy 2.50% 15Nov25	7,665,000	10,586,142			26,293,957
Italy 0.85% 15Jan27	800,000	1,026,310			
Italy 0.95% 15Sep27	2,000,000	2,574,667	NZ 6.00% 15May21	9,245,000	6,844,108
Italy 2.05% 01Aug27	1,269,000	1,757,302	NZ 5.50% 15Apr23	4,165,000	3,388,057
Italy 2.20% 01Jun27	11,410,000	15,818,761	NZ 2.75% 15Apr25	12,500,000	9,944,275
Italy 6.50% 01Nov27	872,000	1,532,239	NZ 3.00% 20Apr29	10,246,000	8,712,797
Italy 4.75% 01Sep28	840,000	1,389,414	NZ 1.50% 15May31	21,935,000	16,591,825
Italy 1.35% 01Apr30	9,150,000	12,152,605	NZ 3.50% 14Apr33	5,019,000	4,589,400
Italy 6.00% 01May31	1,557,000	2,961,190	NZ 2.75% 15Apr37	5,984,000	5,089,635
Italy 2.45% 01Sep33	1,202,000	1,783,080			55,160,097
Italy 3.35% 01Mar35	,430,000	12,211,907	Norway 2.00% 24May23	211,597,000	25,973,404
Italy 3.10% 01Mar40	1,855,000	3,055,444	Norway 3.00% 14Mar24	30,660,000	3,956,037
Italy 5.00% 01Sep40	1,610,000	3,337,156	Norway 1.75% 13Mar25	51,060,000	6,333,908
Italy 3.85% 01Sep49	339,000	660,165	Norway 1.75% 06Sep29	129,390,000	16,251,512
Italy 2.45% 01Sep50	4,260,000	6,559,508	Norway 1.37% 19Aug30	34,474,000	4,202,033
Italy 2.80% 01Mar67	1,500,000	2,480,380 <b>162,277,823</b>			56,716,894
		102,277,020	Portugal 0.70% 15Oct27	3,000,000	3,912,640
			Portugal 1.95% 15Jun29	1,925,000	2,788,291
Japan 1.00% 20Sep21	60,450,000	591,762		-,,,,,	6,700,931
Japan 1.10% 20Dec21	257,700,000	2,525,888			, ,
Japan 1.10% 20Mar21	446,350,000	4,347,334	Singapore 3.12% 01Sep22	7,946,000	6,357,173
Japan 1.10% 20Sep21	34,800,000	341,002	Singapore 2.75% 01Jul23	16,239,000	13,017,835
Japan 1.30% 20Mar21	210,400,000	2,051,237	Singapore 3.00% 01Sep24	15,519,000	12,992,464
Japan 0.80% 20Sep22	918,550,000	9,056,639	Singapore 2.12% 01Jun26	6,000,000	4,920,354
Japan 0.80% 20Sep23	226,550,000	2,254,213	Singapore 3.50% 01Mar27	34,701,000	31,001,218
Japan 0.30% 20Dec24	77,700,000	765,131	Singapore 2.87% 01Sep30	18,137,000	16,426,421
Japan 0.10% 20Dec26	314,500,000	3,081,831			
Japan 0.10% 20Jun27	616,250,000	6,044,214			
Japan 2.10% 20Dec27	915,500,000	10,231,769	Singapore 3.37% 01Sep33	3,243,286	3,110,561
Japan 2.10% 20Mar27	99,100,000	1,096,752	Singapore 2.75% 01Apr42	7,924,000	7,723,478
Japan 0.10% 20Dec29	1,500,000,000	14,678,523	Singapore 2.75% 01Mar46	13,582,000	13,783,587
Japan 0.10% 20Sep29	2,512,300,000	24,613,563			109,333,091
Japan 0.10% 20Sep30	990,000,000	9,661,087	~		
Japan 1.60% 20Mar33	501,650,000	5,745,190	Slovenia 3.12% 07Aug45	245,000	504,839
Japan 1.70% 20Jun33	714,500,000	8,255,107			504,839
Japan 0.20% 20Jun36	453,350,000	4,353,362			
Japan 0.50% 20Sep36	550,000,000	5,525,104	Spain 0.05% 31Oct21	5,998,000	7,377,461
Japan 2.30% 20Mar39	438,900,000	5,712,114	Spain 4.40% 31Oct23	11,750,000	16,520,909
Japan 0.40% 20Jun40	600,000,000	5,816,252	Spain 4.65% 30Jul25	5,640,000	8,665,905
Japan 2.00% 20Sep40	43,550,000	551,916	Spain 1.45% 30Apr29	10,035,000	13,983,207
Japan 2.30% 20Mar40	38,750,000	510,295	Spain 1.25% 31Oct30	21,609,000	29,604,207
Japan 2.20% 20Mar41	1,163,050,000	15,224,913	Spain 4.90% 30Jul40	860,000	1,922,815

## 24. Schedule of financial assets valued through profit or loss (continue)

Security	Nominal	Fair Value	Security	Nominal	Fair Value
Spain 4.70% 30Jul41	2,164,000	4,788,272	UK 4.25% 07Sep39	4,306,000	9,770,425
Spain 2.90% 31Oct46	703,000	1,291,659	UK 4.25% 07Dec40	2,372,300	5,447,342
Spain 3.45% 30Jul66	710,000	1,586,619	UK 3.25% 22Jan44	7,835,000	16,647,655
		85,741,054	UK 3.50% 22Jan45	11,091,000	24,700,082
			UK 4.25% 07Dec46	3,881,000	9,732,366
Sweden 3.50% 01Jun22	106,135,000	13,892,425	UK 1.50% 22Jul47	12,961,000	21,101,770
Sweden 1.50% 13Nov23	35,235,000	4,530,535	UK 3.75% 22Jul52	766,500	1,963,840
Sweden 2.50% 12May25	79,610,000	11,040,179	UK 2.50% 22Jul65	1,024,000	2,416,782
Sweden 1.00% 12Nov26	122,920,000	16,062,958	UK 3.50% 22Jul68	1,900	5,690
Sweden 0.75% 12Nov29	151,790,000	19,874,629			168,103,912
Sweden 2.25% 01Jun32	19,175,000	2,936,541			
Sweden 3.50% 30Mar39	58,910,000	11,393,263	USA 1.50% 31Oct24	1,701,600,000	1,787,794,549
		79,730,530	USA 2.00% 31May24	2,753,000,000	2,926,461,690
			USA 0.25% 31Oct25	712,200,000	709,444,710
Switzerland 2.00% 28Apr21	1,705,000	1,972,348	USA 0.37% 30Apr25	1,623,800,000	1,630,741,867
Switzerland 2.00%25May22	4,585,000	5,453,324	USA 1.62% 15May26	306,900,000	327,424,068
Switzerland 1.25% 11Jun24	12,401,000	15,110,424	USA 2.00% 15Nov26	214,500,000	234,018,454
Switzerland 1.25%28May26	370,000	466,892	USA 0.62% 31Mar27	187,200,000	188,617,741
Switzerland 0.00% 22Jun29	22,875,000	27,182,421	USA 2.25% 15Aug27	184,700,000	206,370,253
Switzerland 2.25% 22Jun31	4,148,000	6,129,791	USA 2.75% 15Feb28	171,200,000	198,103,231
Switzerland 3.50% 08Apr33	743,000	1,280,038	USA 2.87% 15Aug28	52,500,000	61,554,199
			USA 1.62% 15Aug29	63,400,000	68,212,284
			USA 2.62% 15Feb29	160,500,000	185,840,354
Switzerland 0.00% 24Jul39	5,000,000	5,994,683	USA 0.62% 15Aug30	109,500,000	107,021,000
Switzerland 1.50% 30Apr42	10,981,000	17,487,880	USA 1.50% 15Feb30	178,300,000	189,639,069
Switzerland 0.50% 28Jun45	8,000,000	11,009,271			
Switzerland 2.00% 25Jun64	922,000	2,265,107			8,821,243,469
		94,352,179			
UK 3.75% 07Sep21	4,759,000	6,753,176	TL Debt Ins1 4.5% 10Apr37	154,297,000	135,500,000
UK 8.00% 07Jun21	1,588,000	2,257,311	•		
UK 1.00% 22Apr24	8,128,000	11,536,692	TL Debt Ins2 4.5% 10Apr37	301,742,350	264,900,000
UK 0.62% 07Jun25	10,000,000	14,100,091			
UK 0.87% 22Oct29	14,387,000	20,964,022	TL Debt Ins3 4.5% 10Apr37	244,501,400	214,600,000
UK 0.37% 22Oct30	10,500,000	14,598,860	TT D 1.1 4.50/101 5-	000 050	<b>5</b> 00.000
UK 4.25% 07Jun32	734,000	1,452,456	TL Debt Ins4 4.5% 10Apr37	809,250	700,000
UK 4.25% 07Mar36	1,407,120	3,009,293			615,700,000
UK 4.75% 07Dec38	700,000	1,646,059			013,700,000
	,	, ,	Total		11,109,972,874

### 24. Schedule of financial assets valued through profit or loss (continue)

### (b) Equity Securities

Australia         Rio Tinto Ltd         78,741         6,914,544           Afterpay Ltd         45,416         4,135,340         Santos Ltd         383,850         1,851,237           Agl Energy Ltd         139,525         1,286,590         Scentre Group         1,128,516         2,412,170           Amp Ltd         752,708         903,186         Seek Ltd         71,972         1,582,810           Ampol Ltd         53,902         1,164,617         Sonic Healthcare Ltd         97,303         2,411,694           Apa Group Stapled         254,992         1,896,811         South32 Ltd         1,068,356         2,028,016           Aristocrat Leisure L         124,293         2,972,272         Stockland         516,753         1,666,788           Asx Ltd         41,822         2,323,257         Suncorp Group Ltd         271,829         2,038,837           Aurizon Holdings Ltd         426,088         1,278,996         Sydney Airport Stapl         285,502         1,398,952           ANZ         601,174         10,521,159         Telstra Corp Ltd         898,031         2,065,038           BHP Group Ltd         623,441         20,407,339         Tpg Telecom Ltd         61,920         340,198           Brambles Ltd         199,842	7
Agl Energy Ltd         139,525         1,286,590         Scentre Group         1,128,516         2,412,176           Amp Ltd         752,708         903,186         Seek Ltd         71,972         1,582,816           Ampol Ltd         53,902         1,164,617         Sonic Healthcare Ltd         97,303         2,411,694           Apa Group Stapled         254,992         1,896,811         South32 Ltd         1,068,356         2,028,016           Aristocrat Leisure L         124,293         2,972,272         Stockland         516,753         1,666,783           Asx Ltd         41,822         2,323,257         Suncorp Group Ltd         271,829         2,038,837           Aurizon Holdings Ltd         426,088         1,278,996         Sydney Airport Stapl         285,502         1,398,953           Ausnet Services         397,313         538,059         Tabcorp Holdings Ltd         441,840         1,322,870           ANZ         601,174         10,521,159         Telstra Corp Ltd         898,031         2,065,038           BHP Group Ltd         623,441         20,407,339         Tpg Telecom Ltd         61,920         340,198           Bluescope Steel Ltd         109,842         1,477,359         Transurban Group Sta         574,546         6,020,672 <td>4</td>	4
Amp Ltd         752,708         903,186         Seek Ltd         71,972         1,582,816           Ampol Ltd         53,902         1,164,617         Sonic Healthcare Ltd         97,303         2,411,694           Apa Group Stapled         254,992         1,896,811         South32 Ltd         1,068,356         2,028,016           Aristocrat Leisure L         124,293         2,972,272         Stockland         516,753         1,666,783           Asx Ltd         41,822         2,323,257         Suncorp Group Ltd         271,829         2,038,833           Aurizon Holdings Ltd         426,088         1,278,996         Sydney Airport Stapl         285,502         1,398,953           Ausnet Services         397,313         538,059         Tabcorp Holdings Ltd         441,840         1,322,870           ANZ         601,174         10,521,159         Telstra Corp Ltd         898,031         2,065,038           BHP Group Ltd         623,441         20,407,339         Tpg Telecom Ltd         61,920         340,198           Bluescope Steel Ltd         109,842         1,477,359         Transurban Group Sta         574,546         6,020,672           Brambles Ltd         326,277         2,666,262         Treasury Wine Estate         155,205         1,119,793	7
Ampol Ltd         53,902         1,164,617         Sonic Healthcare Ltd         97,303         2,411,694           Apa Group Stapled         254,992         1,896,811         South32 Ltd         1,068,356         2,028,016           Aristocrat Leisure L         124,293         2,972,272         Stockland         516,753         1,666,783           Asx Ltd         41,822         2,323,257         Suncorp Group Ltd         271,829         2,038,837           Aurizon Holdings Ltd         426,088         1,278,996         Sydney Airport Stapl         285,502         1,398,952           Ausnet Services         397,313         538,059         Tabcorp Holdings Ltd         441,840         1,322,870           ANZ         601,174         10,521,159         Telstra Corp Ltd         898,031         2,065,038           BHP Group Ltd         623,441         20,407,339         Tpg Telecom Ltd         61,920         340,198           Bluescope Steel Ltd         109,842         1,477,359         Transurban Group Sta         574,546         6,020,672           Brambles Ltd         326,277         2,666,262         Treasury Wine Estate         155,205         1,119,793           Coinic Group Ltd         15,969         299,436         Vicinity Centers         711,853	)
Apa Group Stapled         254,992         1,896,811         South32 Ltd         1,068,356         2,028,016           Aristocrat Leisure L         124,293         2,972,272         Stockland         516,753         1,666,783           Asx Ltd         41,822         2,323,257         Suncorp Group Ltd         271,829         2,038,837           Aurizon Holdings Ltd         426,088         1,278,996         Sydney Airport Stapl         285,502         1,398,952           Ausnet Services         397,313         538,059         Tabcorp Holdings Ltd         441,840         1,322,870           ANZ         601,174         10,521,159         Telstra Corp Ltd         898,031         2,065,038           BHP Group Ltd         623,441         20,407,339         Tpg Telecom Ltd         61,920         340,198           Bluescope Steel Ltd         109,842         1,477,359         Transurban Group Sta         574,546         6,020,672           Brambles Ltd         326,277         2,666,262         Treasury Wine Estate         155,205         1,119,793           Cimic Group Ltd         15,969         299,436         Vicinity Centers         711,853         878,882           Coca-Cola Amatil Ltd         108,991         1,086,610         Washington H Soul         19,124 <td>)</td>	)
Aristocrat Leisure L         124,293         2,972,272         Stockland         516,753         1,666,783           Asx Ltd         41,822         2,323,257         Suncorp Group Ltd         271,829         2,038,837           Aurizon Holdings Ltd         426,088         1,278,996         Sydney Airport Stapl         285,502         1,398,953           Ausnet Services         397,313         538,059         Tabcorp Holdings Ltd         441,840         1,322,870           ANZ         601,174         10,521,159         Telstra Corp Ltd         898,031         2,065,038           BHP Group Ltd         623,441         20,407,339         Tpg Telecom Ltd         61,920         340,198           Bluescope Steel Ltd         109,842         1,477,359         Transurban Group Sta         574,546         6,020,672           Brambles Ltd         326,277         2,666,262         Treasury Wine Estate         155,205         1,119,793           Cimic Group Ltd         15,969         299,436         Vicinity Centers         711,853         878,882           Coca-Cola Amatil Ltd         108,991         1,086,610         Washington H Soul         19,124         442,711           Coles Group Ltd         290,811         4,068,450         Westpac Banking Corp         765,543<	4
Asx Ltd         41,822         2,323,257         Suncorp Group Ltd         271,829         2,038,837           Aurizon Holdings Ltd         426,088         1,278,996         Sydney Airport Stapl         285,502         1,398,953           Ausnet Services         397,313         538,059         Tabcorp Holdings Ltd         441,840         1,322,870           ANZ         601,174         10,521,159         Telstra Corp Ltd         898,031         2,065,038           BHP Group Ltd         623,441         20,407,339         Tpg Telecom Ltd         61,920         340,198           Bluescope Steel Ltd         109,842         1,477,359         Transurban Group Sta         574,546         6,020,672           Brambles Ltd         326,277         2,666,262         Treasury Wine Estate         155,205         1,119,793           Cimic Group Ltd         15,969         299,436         Vicinity Centers         711,853         878,882           Coca-Cola Amatil Ltd         108,991         1,086,610         Washington H Soul         19,124         442,711           Cochlear Ltd         13,548         1,975,865         Wesfarmers Ltd         240,666         9,341,205           CBA         374,703         23,738,359         Security         Unit         Fair Value <td>5</td>	5
Aurizon Holdings Ltd         426,088         1,278,996         Sydney Airport Stapl         285,502         1,398,953           Ausnet Services         397,313         538,059         Tabcorp Holdings Ltd         441,840         1,322,870           ANZ         601,174         10,521,159         Telstra Corp Ltd         898,031         2,065,038           BHP Group Ltd         623,441         20,407,339         Tpg Telecom Ltd         61,920         340,198           Bluescope Steel Ltd         109,842         1,477,359         Transurban Group Sta         574,546         6,020,672           Brambles Ltd         326,277         2,666,262         Treasury Wine Estate         155,205         1,119,793           Cimic Group Ltd         15,969         299,436         Vicinity Centers         711,853         878,882           Coca-Cola Amatil Ltd         108,991         1,086,610         Washington H Soul         19,124         442,711           Coles Group Ltd         290,811         4,068,450         Westpace Banking Corp         765,543         11,436,555           CBA         374,703         23,738,359         Security         Unit         Fair Value           Computershare Ltd         105,833         1,184,974         Wisetech Global Ltd         33,738	5
Ausnet Services       397,313       538,059       Tabcorp Holdings Ltd       441,840       1,322,870         ANZ       601,174       10,521,159       Telstra Corp Ltd       898,031       2,065,038         BHP Group Ltd       623,441       20,407,339       Tpg Telecom Ltd       61,920       340,198         Bluescope Steel Ltd       109,842       1,477,359       Transurban Group Sta       574,546       6,020,672         Brambles Ltd       326,277       2,666,262       Treasury Wine Estate       155,205       1,119,792         Cimic Group Ltd       15,969       299,436       Vicinity Centers       711,853       878,882         Coca-Cola Amatil Ltd       108,991       1,086,610       Washington H Soul       19,124       442,711         Cochlear Ltd       13,548       1,975,865       Westfarmers Ltd       240,666       9,341,209         Coles Group Ltd       290,811       4,068,450       Westpac Banking Corp       765,543       11,436,557         CBA       374,703       23,738,359       Security       Unit       Fair Value         Computershare Ltd       105,833       1,184,974       Wisetech Global Ltd       33,738       800,542         Crown Resorts Ltd       96,158       21,009,821       Wo	7
ANZ 601,174 10,521,159 Telstra Corp Ltd 898,031 2,065,038 BHP Group Ltd 623,441 20,407,339 Tpg Telecom Ltd 61,920 340,198 Bluescope Steel Ltd 109,842 1,477,359 Transurban Group Sta 574,546 6,020,672 Brambles Ltd 326,277 2,666,262 Treasury Wine Estate 155,205 1,119,793 Cimic Group Ltd 15,969 299,436 Vicinity Centers 711,853 878,882 Coca-Cola Amatil Ltd 108,991 1,086,610 Washington H Soul 19,124 442,711 Cochlear Ltd 13,548 1,975,865 Wesfarmers Ltd 240,666 9,341,209 Coles Group Ltd 290,811 4,068,450 Westpac Banking Corp 765,543 11,436,557 CBA 374,703 23,738,359 Security Unit Fair Value Computershare Ltd 105,833 1,184,974 Wisetech Global Ltd 33,738 800,543 Crown Resorts Ltd 90,139 669,126 Woodside Petroleum L 203,484 3,569,029 CSL Ltd 96,158 21,009,821 Woolworths Group Ltd 267,253 8,104,674	3
BHP Group Ltd         623,441         20,407,339         Tpg Telecom Ltd         61,920         340,198           Bluescope Steel Ltd         109,842         1,477,359         Transurban Group Sta         574,546         6,020,672           Brambles Ltd         326,277         2,666,262         Treasury Wine Estate         155,205         1,119,793           Cimic Group Ltd         15,969         299,436         Vicinity Centers         711,853         878,882           Coca-Cola Amatil Ltd         108,991         1,086,610         Washington H Soul         19,124         442,713           Cochlear Ltd         13,548         1,975,865         Wesfarmers Ltd         240,666         9,341,209           Coles Group Ltd         290,811         4,068,450         Westpac Banking Corp         765,543         11,436,557           CBA         374,703         23,738,359         Security         Unit         Fair Value           Computershare Ltd         105,833         1,184,974         Wisetech Global Ltd         33,738         800,543           Crown Resorts Ltd         90,139         669,126         Woodside Petroleum L         203,484         3,569,029           CSL Ltd         96,158         21,009,821         Woolworths Group Ltd         267,253 <t< td=""><td>)</td></t<>	)
Bluescope Steel Ltd         109,842         1,477,359         Transurban Group Sta         574,546         6,020,672           Brambles Ltd         326,277         2,666,262         Treasury Wine Estate         155,205         1,119,793           Cimic Group Ltd         15,969         299,436         Vicinity Centers         711,853         878,882           Coca-Cola Amatil Ltd         108,991         1,086,610         Washington H Soul         19,124         442,711           Cochlear Ltd         13,548         1,975,865         Wesfarmers Ltd         240,666         9,341,205           Coles Group Ltd         290,811         4,068,450         Westpac Banking Corp         765,543         11,436,555           CBA         374,703         23,738,359         Security         Unit         Fair Value           Computershare Ltd         105,833         1,184,974         Wisetech Global Ltd         33,738         800,543           Crown Resorts Ltd         90,139         669,126         Woodside Petroleum L         203,484         3,569,029           CSL Ltd         96,158         21,009,821         Woolworths Group Ltd         267,253         8,104,674	3
Brambles Ltd         326,277         2,666,262         Treasury Wine Estate         155,205         1,119,792           Cimic Group Ltd         15,969         299,436         Vicinity Centers         711,853         878,882           Coca-Cola Amatil Ltd         108,991         1,086,610         Washington H Soul         19,124         442,713           Cochlear Ltd         13,548         1,975,865         Wesfarmers Ltd         240,666         9,341,209           Coles Group Ltd         290,811         4,068,450         Westpac Banking Corp         765,543         11,436,557           CBA         374,703         23,738,359         Security         Unit         Fair Value           Computershare Ltd         105,833         1,184,974         Wisetech Global Ltd         33,738         800,543           Crown Resorts Ltd         90,139         669,126         Woodside Petroleum L         203,484         3,569,029           CSL Ltd         96,158         21,009,821         Woolworths Group Ltd         267,253         8,104,674	3
Cimic Group Ltd         15,969         299,436         Vicinity Centers         711,853         878,882           Coca-Cola Amatil Ltd         108,991         1,086,610         Washington H Soul         19,124         442,711           Cochlear Ltd         13,548         1,975,865         Wesfarmers Ltd         240,666         9,341,209           Coles Group Ltd         290,811         4,068,450         Westpac Banking Corp         765,543         11,436,550           CBA         374,703         23,738,359         Security         Unit         Fair Value           Computershare Ltd         105,833         1,184,974         Wisetech Global Ltd         33,738         800,543           Crown Resorts Ltd         90,139         669,126         Woodside Petroleum L         203,484         3,569,029           CSL Ltd         96,158         21,009,821         Woolworths Group Ltd         267,253         8,104,674	2
Coca-Cola Amatil Ltd         108,991         1,086,610         Washington H Soul         19,124         442,711           Cochlear Ltd         13,548         1,975,865         Wesfarmers Ltd         240,666         9,341,209           Coles Group Ltd         290,811         4,068,450         Westpac Banking Corp         765,543         11,436,557           CBA         374,703         23,738,359         Security         Unit         Fair Value           Computershare Ltd         105,833         1,184,974         Wisetech Global Ltd         33,738         800,543           Crown Resorts Ltd         90,139         669,126         Woodside Petroleum L         203,484         3,569,029           CSL Ltd         96,158         21,009,821         Woolworths Group Ltd         267,253         8,104,674	3
Cochlear Ltd         13,548         1,975,865         Wesfarmers Ltd         240,666         9,341,209           Coles Group Ltd         290,811         4,068,450         Westpac Banking Corp         765,543         11,436,557           CBA         374,703         23,738,359         Security         Unit         Fair Value           Computershare Ltd         105,833         1,184,974         Wisetech Global Ltd         33,738         800,543           Crown Resorts Ltd         90,139         669,126         Woodside Petroleum L         203,484         3,569,029           CSL Ltd         96,158         21,009,821         Woolworths Group Ltd         267,253         8,104,674	2
Coles Group Ltd         290,811         4,068,450         Westpac Banking Corp         765,543         11,436,557           CBA         374,703         23,738,359         Security         Unit         Fair Value           Computershare Ltd         105,833         1,184,974         Wisetech Global Ltd         33,738         800,543           Crown Resorts Ltd         90,139         669,126         Woodside Petroleum L         203,484         3,569,029           CSL Ltd         96,158         21,009,821         Woolworths Group Ltd         267,253         8,104,674	l
CBA         374,703         23,738,359         Security         Unit         Fair Value           Computershare Ltd         105,833         1,184,974         Wisetech Global Ltd         33,738         800,543           Crown Resorts Ltd         90,139         669,126         Woodside Petroleum L         203,484         3,569,029           CSL Ltd         96,158         21,009,821         Woolworths Group Ltd         267,253         8,104,674	)
Computershare Ltd         105,833         1,184,974         Wisetech Global Ltd         33,738         800,543           Crown Resorts Ltd         90,139         669,126         Woodside Petroleum L         203,484         3,569,029           CSL Ltd         96,158         21,009,821         Woolworths Group Ltd         267,253         8,104,674	7
Crown Resorts Ltd         90,139         669,126         Woodside Petroleum L         203,484         3,569,029           CSL Ltd         96,158         21,009,821         Woolworths Group Ltd         267,253         8,104,674	e
CSL Ltd 96,158 21,009,821 Woolworths Group Ltd 267,253 8,104,674	3
•	)
Dexus 236,765 1,713,723 Xero Ltd 15,389 1,741,696	4
	5
Evolution Mining Ltd 342,499 1,316,161 <b>235,530,18</b> 3	3
Fortescue Metals Group 353,017 6,379,738 Canada	
Goodman Group 348,254 5,052,128 Agnico Eagle Mines L 21,598 1,518,302	2
GPT Group 418,930 1,454,703 Air Canada 18,486 330,397	7
Insurance Australia 500,221 1,814,179 Alamos Gold Inc 36,897 321,765	3
James Hardie Industr 95,343 2,810,428 Algonquin Power & 60,920 999,872	2
Lendlease Corp Ltd 141,723 1,427,155 Alimentation Couche- 100,967 3,423,685	5
Macquarie Group Ltd 71,501 7,640,460 Altagas Ltd 31,719 465,577	7
Security Unit Fair Value Argonaut Gold Inc 124,100 265,929	)
Atco Ltd/Canada 11,263 322,330	)
Magellan Financial G 27,324 1,130,133 B2Gold Corp 112,004 626,836	5
Medibank Pvt Ltd 597,210 1,382,511 Bank Of Montreal 83,517 6,335,886	5
Mirvac Group 844,559 1,713,981 Bank of Nova Scotia 156,775 8,454,037	7
National Australia B 686,700 11,970,262 Barrick Gold Corp 187,534 4,261,468	3
Newcrest Mining Ltd 175,134 3,483,965 Bausch Health Cos In 32,757 674,424	4
Northern Star Resour 157,313 1,539,233 Bce Inc 50,792 2,168,827	7
Oil Search Ltd 416,305 1,188,594 Blackberry Ltd 44,586 295,024	4
Orica Ltd 86,806 1,012,126 Brookfield Asset 137,963 5,677,709	)
Origin Energy Ltd 383,254 1,404,755 Brookfield Renewable 12,235 706,058	3
Qantas Airways Ltd 194,213 726,843 Cae Inc 30,727 846,801	1
Qbe Insurance Group         312,920         2,059,694         Cameco Corp         33,433         445,336	5
Ramsay Health Care L 39,265 1,881,558 Canacol Energy Ltd 90,564 265,863	3

Canadian Apartment	13,964	546,942	Manulife Financial	315,833	5,610,127
Canadian Imperial Ba	57,111	4,873,712	Metro Inc/Cn	28,708	1,278,791
Canadian National Ra	110,192	12,065,766	National Bank Of Can	38,620	2,168,055
Canadian Natural	124,152	2,978,089	Northland Power Inc	15,575	555,761
Canadian Pacific Rai	15,750	5,439,561	Nutrien Ltd	60,010	2,882,741
Canadian Tire Corp L	14,261	1,869,378	Onex Corp	11,438	655,037
Canadian Utilities L	21,697	528,801	Open Text Corp	31,415	1,424,032
Security	Unit	Fair Value	Pan American Silver	17,920	615,385
Canopy Growth Corp	9,100	223,571	Parex Resources Inc	32,381	445,048
CCL Industries Inc	17,118	772,863	Parkland Corp/Canada	18,069	572,280
Cenovus Energy Inc	306,737	1,846,682	Pembina Pipeline Corp	64,517	1,523,290
Centerra Gold Inc	29,276	337,800	Power Corp Of Canada	71,735	1,644,162
CGI Inc	26,999	2,136,397	Pretium Resources In	18,372	209,533
Ci Financial Corp	98,050	1,213,696	Quebecor Inc	15,450	396,073
Cogeco Communication	4,400	337,287	Real Matters Inc	19,413	292,566
Constellation Software	2,175	2,814,116	Restaurant Brands	29,954	1,825,689
Crescent Point Energ	192,958	448,317	Riocan Real Estate	26,325	345,696
Dollarama Inc	89,931	3,653,006	Ritchie Bros Auction	9,310	643,662
Emera Inc	26,665	1,131,274	Rogers Communication	41,420	1,921,121
Empire Co Ltd	18,867	514,622	Royal Bank Of Canada	186,920	15,298,391
Enbridge Inc	212,789	6,791,210	Saputo Inc	30,170	840,687
Endeavour Mining Corp	20,457	473,851	Seven Generations En	109,399	564,169
Fairfax Financial	3,306	1,123,625	Shaw Communications	54,533	955,398
First Quantum Minera	84,430	1,514,306	Shopify Inc	9,993	11,260,167
Firstservice Corp	4,889	666,769	Ssr Mining Inc	56,589	1,133,113
Fortis Inc/Canada	53,290	2,170,083	Sun Life Financial I	119,670	5,309,065
Fortuna Silver Mines	24,217	198,070	Sunr Energy Inc	179,991	3,010,682
Franco-Nevada Corp	20,275	2,533,580	Tc Energy Corp	98,753	4,008,256
George Weston Ltd	8,468	631,444	Security	Unit	Fair Value
Gfl Environmental In	18,868	545,010	Teck Resources Ltd	102,492	1,855,154
Gildan Activewear In	23,920	666,155	Telus Corporation	69,137	1,366,460
Great-West Lifeco In	39,836	942,431	Teranga Gold Corp	18,449	197,668
Hydro One Ltd	37,246	836,719	Tfi International In	4,750	244,211
Ia Financial Corp In	11,813	510,629	Thomson Reuters Corp	17,518	1,430,316
Iamgold Corp	67,815	248,052	Tmx Group Ltd	5,718	569,197
Igm Financial Inc	11,453	309,519	Topicus.Com Inc	4,043	147,674
Imperial Oil Ltd	69,229	1,307,418	Torex Gold Resources	11,983	179,087
Intact Financial Cor	17,935	2,115,598	Toromont Industries	4,391	306,233
Inter Pipeline Ltd	50,014	465,201	Toronto-Dominion Ban	211,451	11,903,663
Keyera Corp	30,186	535,719	Tourmaline Oil Corp	61,057	820,483
Kinross Gold Corp	145,666	1,066,769	Wesdome Gold Mines L	51,536	428,793
Security Kirkland Lake Gold L	Unit	Fair Value	West Fraser Timber Wheaton Precious Met	5,821 40,136	372,928
Linamar Corp	30,594 5,800	1,259,541 306,480	Wsp Global Inc	12,546	1,671,282 1,183,006
Loblaw Cos Ltd	21,859	1,076,993	Yamana Gold Inc	12,546	577,643
Lundin Mining Corp	126,897	1,076,993	i airiaila Guig IIIC	101,306	206,179,215
Magna International	56,321	3,978,721	Denmark		
iviagna mitemational	30,321	3,710,141			

Ambu A/S	17,321	748,816	Arkema Sa	8,623	986,488
Ap Moller - Maersk A	1,244	2,727,995	Aroundtown Sa	132,871	1,001,783
Carlsberg As	12,991	2,088,041	Security	Unit	Fair Value
Chr Hansen Holding A	10,675	1,100,577	Asml Holding Nv	53,882	26,209,401
Coloplast A/S	13,253	2,028,633	Asr Nederland Nv	17,875	718,461
Danske Bank A/S	97,092	1,607,959	Assicurazioni Genera	148,580	2,591,488
Demant A/S	10,015	395,925	Atlantia Spa	55,290	995,471
Dsv Panalpina A/S	21,716	3,649,972	Atos Se	12,679	1,160,091
Genmab A/S	7,066	2,858,457	Axa Sa	204,263	4,876,555
Gn Store Nord As	11,106	889,794	Banco Bilbao Vizcaya	859,055	4,241,175
H Lundbeck A/S	10,947	376,806	Banco Espirito Santo	247,871	36,394
Netcompany Group A/S	6,813	695,467	Bano Santander Sa	2,261,973	7,024,261
Novo Nordisk A/S	239,287	16,858,450	Bank Of Ireland Group	122,916	492,690
Novozymes A/S	23,473	1,345,448	Basf Se	97,791	7,737,905
Orsted As	17,067	3,502,613	Bayer Ag	102,881	6,100,146
Security	Unit	Fair Value	Bayerische Motoren W	53,803	4,659,320
Pandora A/S	14,699	1,649,303	Bechtle Ag	2,273	501,159
Rockwool Internation	742	278,334	Beiersdorf Ag	12,240	1,419,149
Scandinavian Tobacco	17,157	293,870	Biomerieux	5,197	733,804
Simcorp A/S	1,923	286,387	Bnp Paribas Sa	158,835	8,377,135
Tryg A/S	20,574	648,316	Bollore Sa	83,179	344,198
Vestas Wind Systems	20,954	4,966,821	Bouygues Sa	27,307	1,124,296
		48,997,984	Brenntag Ag	18,504	1,458,958
Europe			Bureau Veritas Sa	32,325	860,635
Abn Amro Bank Nv Dut	127,792	1,254,006	Caixabank Sa	406,038	1,043,793
Accor Sa	21,040	761,492	Capgemini Se	18,892	2,931,020
Acs Actividades De	31,951	1,061,392	Carl Zeiss Meditec A	4,684	625,264
Adidas Ag	20,177	7,376,644	Carrefour Sa	61,094	1,048,764
Adyen Nv	2,266	5,281,734	Cellnex Telecom Sa	28,553	1,716,057
Aegon Nv	286,708	1,134,492	Cie De Saint-Gobain	60,344	2,768,771
Aena Sme Sa	8,584	1,492,469	Cie Generale Des	21,496	2,760,335
Aeroports De Paris	3,216	415,529	Cnh Industrial Nv	116,951	1,486,761
Ageas Sa/Nv	36,351	1,938,319	Cnp Assurances	39,593	638,008
Aib Group Plc	96,342	193,322	Commerzbank Ag	114,083	737,574
Air Liquide Sa	64,898	10,660,246	Continental Ag	12,276	1,845,994
Airbus Se	61,588	6,765,460	Convivio Sa	6,846	631,163
Akzo Nobel Nv	22,356	2,403,294	Security	Unit	Fair Value
Allianz Se	58,849	14,541,345	Covestro Ag	20,290	1,258,669
Alstom Sa	22,414	1,278,263	Credit Agricole Sa	117,800	1,487,465
Altice Europe Nv	79,777	520,072	Crh Plc	90,830	3,780,814
Amadeus It Group Sa	52,534	3,828,395	Daimler Ag	117,727	8,384,850
Amplifon Spa	11,621	482,304	Danone Sa	72,417	4,763,448
Amundi Sa	6,575	537,395	Dassault Aviation Sa	224	245,708
Anheuser-Busch Inbev	80,027	5,582,249	Dassault Systemes Se	14,087	2,862,924
Anima Holding Spa	43,663	207,391	Davide Campari-Milan	59,131	677,193
Arcelormittal Sa	109,589	2,531,306	Delivery Hero Se	11,624	1,801,996
Argenx Se	3,984	1,175,759	Deutsche Bank Ag	314,743	3,455,921

Deutsche Boerse Ag	19,800	3,386,835	Heineken Holding Nv	13,793	1,300,328
Deutsche Lufthansa A	32,366	427,893	Heineken Nv	29,762	3,321,803
Deutsche Post Ag	115,781	5,764,301	Hellofresh Se	12,991	1,009,341
Deutsche Telekom Ag	388,044	7,133,737	Henkel Ag & Co Kgaa	36,382	3,898,527
Deutsche Wohnen Se	42,810	2,282,728	Hermes International	3,194	3,437,493
Diasorin Spa	6,877	1,428,757	Hochtief Ag	3,254	317,718
E.On Se	226,579	2,520,581	Iberdrola Sa	725,631	10,387,794
Edenred	27,552	1,564,539	Iliad Sa	2,041	419,790
EDP - Energias De	277,466	1,750,428	Industria De Diseno	127,922	4,075,753
Eiffage Sa	11,459	1,108,193	Infineon Technologie	137,746	5,319,093
Electricite De Franc	65,885	1,039,109	Security	Unit	Fair Value
Elia Group Sa/Nv	1,649	196,518	Infrastrutture Wirel	17,960	217,772
Elisa Oyj	18,953	1,044,707	Ing Groep Nv	501,937	4,692,681
Enagas Sa	25,268	555,109	Intertrust Nv	10,762	182,243
Endesa Sa	38,121	1,042,470	Intesa Sanpaolo Spa	1,827,298	4,278,855
Enel Spa	852,543	8,637,106	Ipsen Sa	10,815	893,868
Engie Sa	225,094	3,448,180	Italgas Spa	75,461	479,656
Eni Spa	264,554	2,762,413	Jde Peet'S Nv	3,695	166,238
Erste Group Bank Ag	64,176	1,976,412	Jeronimo Martins Sgp	26,014	439,883
Essilorluxottica Sa	33,421	5,056,962	Just Eat Takeaway.	11,242	1,269,600
Etablissements Franz	5,964	353,698	Kbc Group Nv	26,374	1,848,420
Eurazeo Se	4,067	275,680	Kering Sa	6,838	4,972,290
Eurofins Scientific	11,829	993,307	Kerry Group Plc	18,238	2,644,339
Security	Unit	Fair Value	Kesko Oyj	26,046	671,152
Eutelsat Communicati	50,707	573,273	Kingspan Group Plc	16,264	1,142,249
Evonik Industries Ag	20,716	680,822	Kion Group Ag	12,805	1,125,557
Exor Nv	15,251	1,237,182	Klepierre Sa Reit Eu	36,892	830,110
Faurecia Se	17,898	917,791	Knorr-Bremse Ag	7,202	983,420
Ferrari Nv	13,208	3,054,362	Kone Oyj	42,367	3,449,309
Ferrovial Sa	49,042	1,356,120	Koninklijke Ahold	128,975	3,646,927
Fiat Chrysler Automo	144,111	2,587,069	Koninklijke Dsm Nv	18,053	3,110,095
Finecobank Banca Fin	68,315	1,120,899	Koninklijke Kpn Nv	363,118	1,104,957
Flutter Entertainmen	13,010	2,656,778	Koninklijke Philips	95,392	5,109,864
Fortum Oyj	56,740	1,372,517	Koninklijke Vopak Nv	7,345	386,170
Fresenius Medical Ca	21,408	1,794,272	La Française Des Jeu	4,589	210,052
Fresenius Se & Co Kg	48,346	2,257,307	Lanxess Ag	6,608	512,926
Fuchs Petrolub Se	9,695	552,072	Leg Immobilien Ag	5,935	925,004
Galapagos Nv	4,250	418,503	Legrand Sa	49,104	4,383,523
Galp Energia Sgps Sa	57,890	619,915	L'Oreal Sa	29,650	11,275,280
Gaztransport Et Tech	6,178	598,680	Lvmh Moet Hennessy L	29,871	18,672,708
Gea Group Ag	19,481	705,783	Mediaset Espana	40,257	209,143
Gecina Sa Reit Eur 7	6,338	977,112	Mediobanca Banca Di	122,645	1,133,570
Getlink Se	42,897	744,260	Merck Kgaa	14,371	2,452,917
Grifols Sa	31,740	927,391	Metropole Television	30,148	486,916
Groupe Bruxelles Lam	11,632	1,172,744	Security	Unit	Fair Value
Hannover Rueck Se	6,593	1,064,019	Moncler Spa	30,584	1,875,543
Heidelbergcement Ag	16,306	1,230,989	Mtu Aero Engines Ag	6,042	1,585,731

Muenchener	16,479	4,919,742	Schneider Electric S	64,220	9,295,584
Natixis Sa	92,897	316,327	Scor Se	20,982	678,268
Naturgy Energy Group	29,031	673,476	Scout24 Ag	9,828	810,488
Nemetschek Se	5,440	408,352	Seb Sa	2,566	467,805
Neste Oyj	44,658	3,242,414	Ses Sa Receipt Eur 0	39,527	372,881
Nexi Spa	42,528	852,335	Siemens Ag	89,725	12,945,611
Nn Group Nv	64,103	2,786,732	Siemens Energy Ag	49,904	1,847,066
Nokia Oyj	720,047	2,781,800	Siemens Gamesa Renew	21,338	863,917
Omv Ag	36,911	1,498,490	Siemens Healthineers	26,335	1,363,804
Orange Sa	271,554	3,233,553	Signify Nv	17,259	729,178
Orion Oyj	9,252	424,058	Smurfit Kappa Group	24,133	1,123,242
Orpea Sa	5,276	694,283	Snam Spa	350,110	1,971,819
Pernod Ricard Sa	24,037	4,611,561	Societe Bic Sa	10,326	584,466
Peugeot Sa	97,224	2,661,099	Societe Generale Sa	150,439	3,133,233
Porsche Automobil Ho	28,086	1,952,598	Sodexo Sa	12,008	1,016,713
Poste Italiane Spa	55,866	570,079	Sofina Sa	2,153	727,068
Postnl Nv	47,757	162,911	Solvay Sa	7,960	943,558
Prosiebensat.1 Media	20,414	342,317	Stmicroelectronics N	67,635	2,505,815
Prosus Nv	49,921	5,397,102	Security	Unit	Fair Value
Proximus Sadp	16,387	325,016	Stora Enso Oyj	63,231	1,213,490
Prysmian Spa	48,778	1,732,577	Suez Sa	39,831	790,485
Publicis Groupe Sa	51,538	2,570,297	Symrise Ag	13,110	1,755,659
Puma Se	9,494	1,073,586	Teamviewer Ag	13,517	726,050
Qiagen Nv	20,530	1,077,877	Telecom Italia Spa/M	1,746,747	842,734
Raiffeisen Bank	46,754	960,486	Telefonica Deutschla	103,314	286,950
Randstad Nv	13,476	877,521	Telefonica Sa	516,017	2,048,172
Rational Ag	530	494,467	Teleperformance	6,108	2,027,545
Recordati Industria	11,202	621,576	Tenaris Sa	127,082	1,026,553
Red Electrica Corp S	90,320	1,853,822	Terna Rete Elettrica	161,537	1,238,071
Remy intreau Sa	2,289	426,267	Thales Sa	13,608	1,247,090
Renault Sa	31,156	1,363,204	Total Se	323,074	13,953,988
Security	Unit	Fair Value	Ubisoft Entertainmen	8,586	828,246
Reply Spa	2,004	233,675	Ucb Sa	15,498	1,601,958
Repsol Sa	293,829	2,965,994	Umicore Sa	22,299	1,071,440
Repsol Sa	314,146	107,894	Unibail-Rodamco-West	15,382	1,211,381
Rexel Sa	18,638	294,064	Unicredit Spa	318,571	2,983,433
Royal Dutch Shell Pl	53,333	953,645	Unilever Plc	75,703	4,591,027
Rtl Group Sa	6,280	305,051	Uniper Se	23,093	802,454
Rubis Sca	8,459	392,058	United Internet Ag	10,732	456,438
Rwe Ag	80,484	3,402,352	Upm-Kymmene Oyj	58,500	2,188,129
Safran Sa	33,553	4,760,184	Valeo Sa	25,717	1,015,723
Sampo Oyj	57,335	2,433,581	Varta Ag	2,467	356,183
Sanofi	178,516	17,189,906	Veolia Environnement	62,099	1,519,624
Sap Se	111,418	14,652,261	Verbio Vereinigte	14,435	550,169
Sartorius Ag Prefere	4,420	1,865,791	Verbund Ag	8,256	701,558
Sartorius Stedim Bio	4,268	1,520,679	Vinci Sa	60,044	5,977,261
Schaeffler Ag Prefer	25,847	215,367	Vivendi Sa	96,620	3,118,627

Voestalpine Ag	11,525	416,133	Wh Group Ltd	1,656,408	1,388,555
Volkswagen Ag	2,952	619,444	Wharf Real Estate	326,000	1,692,256
Volkswagen Ag Prefer	24,927	4,635,913	Wynn Macau Ltd	135,600	227,345
Vonovia Se	54,161	3,941,661	Xinyi Glass Holdings	314,000	876,738
Wartsila Oyj Abp	61,634	616,118			61,418,600
Security	Unit	Fair Value	Israel		
Wendel Se	3,388	406,041	Azrieli Group Ltd	7,904	501,693
Wolters Kluwer Nv	46,845	3,958,325	Bank Hapoalim Bm	180,809	1,238,317
Worldline Sa/France	30,441	2,943,930	Bank Leumi Le-Israel	202,061	1,189,408
Zalando Se	13,604	1,518,372	Elbit Systems Ltd	3,606	474,503
Zardoya Otis Sa	109,038	760,457	Icl Group Ltd	74,439	379,289
		625,778,239	Israel Discount Bank	159,465	613,862
Hong Kong			Mizrahi Tefahot Bank	16,479	380,052
Aia Group Ltd	1,283,800	15,729,085	Nice Ltd	7,273	2,038,651
Asm Pacific Technology	43,400	563,640	Teva Pharmaceutical	43,353	412,494
Bank Of East Asia Ltd	169,146	361,247	_		7,228,269
Boc Hong Kong Holding	740,000	2,242,756	Japan		
Budweiser Brewing Co	188,400	622,019	Abc-Mart Inc	5,000	277,980
Ck Asset Holdings Ltd	369,848	1,896,020	Acom Co Ltd	67,600	288,091
Ck Hutchison Holding	429,740	2,998,372	Advantest Corp	22,100	1,652,496
Ck Infrastructure	76,000	407,746	Aeon Co Ltd	67,900	2,224,860
Clp Holdings Ltd	205,500	1,900,262	Aeon Mall Co Ltd	17,390	286,675
Esr Cayman Ltd	183,400	656,364	Agc Inc	18,800	654,618
Galaxy Entertainment	223,000	1,732,784	Air Water Inc	21,800	387,035
Hang Lung Properties	240,000	626,785	Aisin Seiki Co Ltd	33,200	995,244
Hang Seng Bank Ltd	92,800	1,600,154	Ajinomoto Co Inc	53,900	1,220,052
Henderson Land	245,953	959,533	Security	Unit	Fair Value
Hk Electric Investment	348,154	342,593	Alfresa Holdings Corp	20,100	367,561
Hkt Trust & Hkt Ltd	529,040	686,387	Amada Co Ltd	86,500	947,566
Hong Kong & China Ga	1,192,305	1,774,499	Ana Holdings Inc	26,400	581,595
Hong Kong Exchanges	127,075	6,965,167	Asahi Group Holdings	51,000	2,095,917
Hsbc Holdings Plc	164,400	862,936	Asahi Holdings Inc	5,000	177,490
Js Global Lifestyle	115,500	223,139	Asahi Intecc Co Ltd	20,400	743,920
Link Reit	262,200	2,387,371	Asahi Kasei Corp	137,700	1,405,741
Man Wah Holdings Ltd	147,600	319,419	Astellas Pharma Inc	351,200	5,420,476
Mtr Corp Ltd	187,853	1,050,243	Azbil Corp	10,900	593,326
New World Development	187,747	874,103	Bandai Namco Holding	23,000	1,986,672
Pccw Ltd	380,100	227,457	Bank Of Kyoto Ltd	10,200	529,536
Power Assets Holding	141,500	763,720	Baycurrent Consulting	3,100	541,963
Security	Unit	Fair Value	Bridgestone Corp	70,600	2,314,014
Sands China Ltd	244,000	1,071,493	Brother Industries	25,900	533,077
Sino Land Co Ltd	585,422	762,558	Calbee Inc	10,200	306,756
Sjm Holdings Ltd	226,000	252,703	Canon Inc	126,000	2,413,947
Sun Hung Kai Property	220,000	2,837,299	Capcom Co Ltd	19,700	1,274,599
Swire Pacific Ltd	136,000	754,206	Casio Computer Co Lt	19,200	350,731
Swire Properties Ltd	223,723	649,196	Central Japan Railwa	14,500	2,048,355
Techtronic Industries	149,500	2,132,450	Chiba Bank Ltd	62,100	341,040
			Chubu Electric Power	65,900	793,391

Chugai Pharmaceutica	70,600	3,758,221	Honda Motor Co Ltd	229,200	6,387,940
Chugoku Electric Power	28,500	333,735	Hoshizaki Corp	5,000	458,133
Coca-Cola Bottlers J	12,200	190,128	Hoya Corp	39,400	5,438,034
Concordia Financial	146,500	515,081	Hulic Co Ltd	40,800	447,735
Cosmos Pharmaceutica	1,300	209,899	Ibiden Co Ltd	10,700	497,976
Credit Saison Co Ltd	16,900	193,971	Idemitsu Kosan Co Ltd	32,986	724,928
Cyberagent Inc	8,900	612,039	Iida Group Holdings	11,000	221,715
Dai Nippon Printing	46,500	835,014	Inpex Corp	275,600	1,481,505
Daifuku Co Ltd	9,700	1,197,879	Isuzu Motors Ltd	119,800	1,135,979
Dai-Ichi Life Holdin	122,700	1,843,857	Ito En Ltd	2,900	182,856
Daiichi Sankyo Co Ltd	154,700	5,295,265	Itochu Corp	205,800	5,907,193
Daikin Industries Ltd	26,000	5,770,641	Itochu Techno-Soluti	11,500	409,899
Security	Unit	Fair Value	Japan Airlines Co Lt	24,100	465,683
Daito Trust Construc	8,000	746,961	Japan Airport Termin	3,900	235,711
Daiwa House Industry	64,000	1,898,706	Japan Exchange Group	56,900	1,453,569
Daiwa House Reit Inv	286	706,378	Japan Petroleum	25,600	465,161
Daiwa Securities Group	275,000	1,251,610	Japan Post Bank Co	74,300	609,541
Denso Corp	49,500	2,940,897	Japan Post Holdings	165,200	1,284,382
Dentsu Group Inc	21,300	631,294	Japan Post Insurance	20,600	421,198
Dic Corp	10,200	257,161	Japan Real Estate	158	909,022
Disco Corp	2,900	971,863	Japan Retail Fund	342	620,764
Dowa Holdings Co Ltd	7,400	267,345	Japan Tobacco Inc Co	152,400	3,102,025
East Japan Railway	34,200	2,280,331	Jfe Holdings Inc	125,000	1,194,973
Eisai Co Ltd	26,100	1,863,617	Jgc Holdings Corp	32,800	305,619
Eneos Holdings Inc	447,300	1,604,292	Jsr Corp	21,500	597,864
Fanuc Corp	20,700	5,078,511	Jtekt Corp	28,800	223,158
Fast Retailing Co Ltd	5,500	4,920,140	Kajima Corp	84,600	1,131,605
Fuji Electric Co Ltd	14,100	507,351	Kakaku.Com Inc	15,400	421,824
Fuji Media Holdings	16,400	174,730	Kanamoto Co Ltd	6,900	148,098
Fujifilm Holdings	40,600	2,138,042	Kaneka Corp	9,500	331,711
Fujitsu Ltd	20,500	2,958,496	Kansai Electric Powe	83,200	784,656
Fukuoka Financial	21,000	372,628	Kansai Paint Co Ltd	18,800	577,229
Glp J-Reit	465	729,173	Kao Corp	49,400	3,813,433
Gmo Payment Gateway	7,100	951,755	Security	Unit	Fair Value
Gs Yuasa Corp	10,400	298,467	Kddi Corp	292,400	8,680,379
Hakuhodo Dy Holdings	21,800	298,775	Keihan Holdings Co	10,500	502,397
Hamamatsu Photonics	15,100	861,436	Keikyu Corp	22,400	383,585
Hankyu Hanshin Holdi	23,200	769,625	Keio Corp	10,600	820,320
Harmonic Drive Syste	1,900	169,306	Keisei Electric Rail	15,900	537,469
Hikari Tsushin Inc	2,500	585,500	Keyence Corp	19,260	10,817,833
Hino Motors Ltd	30,300	257,672	Kikkoman Corp	15,800	1,097,254
Hirose Electric Co L	3,391	513,683	Kintetsu Group Holdi	19,700	861,499
Hisamitsu Pharmaceut	4,100	243,034	Kirin Holdings Co Ltd	91,400	2,154,311
Hitachi Construction	12,600	357,332	Kobayashi Pharmaceut	4,600	561,383
Hitachi Ltd	124,600	4,904,589	Kobe Bussan Co Ltd	12,200	374,585
Hitachi Metals Ltd	18,100	274,362	Koei Tecmo Holdings	8,600	523,938
Security	Unit	Fair Value	Koito Manufacturing	12,000	814,761

Komatsu Ltd	90,800	2,477,882	Nabtesco Corp	9,300	407,148
Konami Holdings Corp	10,900	610,218	Nagoya Railroad Co	19,100	503,376
Kose Corp	3,900	663,693	Nec Corp	27,300	1,462,240
Kubota Corp	108,300	2,360,162	Nexon Co Ltd	94,600	2,913,729
Kuraray Co Ltd	43,000	456,468	Ngk Insulators Ltd C	19,600	302,035
Kurita Water Industr	10,100	384,943	Ngk Spark Plug Co Ltd	42,000	717,187
Kyocera Corp	38,300	2,346,336	Nh Foods Ltd	8,400	369,374
Kyowa Kirin Co Ltd C	25,800	703,193			
Kyushu Electric Powe	39,000	335,435	Security	Unit	Fair Value
Kyushu Railway Co	20,000	430,820	Nihon M&A Center Inc	20,500	1,366,071
Lasertec Corp	13,300	1,558,719	Nikon Corp	43,400	273,234
Lawson Inc	6,000	278,948	Nintendo Co Ltd	11,900	7,587,552
Line Corp	1,700	88,091	Nippon Building Fund	182	1,050,627
Lion Corp	24,100	582,863	Nippon Carbon Co Ltd	6,100	233,081
Lixil Corp	30,400	657,496	Nippon Electric Glas	10,200	222,682
M3 Inc	65,200	6,147,725	Nippon Express Co Lt	9,200	617,521
Makita Corp	27,100	1,354,409	Nippon Paint Holding	13,700	1,502,097
Marubeni Corp	286,100	1,901,237	Nippon Prologis Reit	231	719,323
Marui Group Co Ltd	21,700	380,845	Nippon Sanso Holding	14,600	270,944
Maruichi Steel Tube	7,200	159,210	Nippon Shinyaku Co	5,600	367,204
Security	Unit	Fair Value	Nippon Shokubai Co	3,800	212,369
Mazda Motor Corp	160,600	1,076,422	Nippon Steel Corp Co	146,024	1,876,835
Mcdonald'S Holdings	8,600	416,485	Nippon Telegraph	272,800	6,988,773
Medipal Holdings Cor	23,300	437,136	Nippon Yusen Kk	40,100	932,540
Medley Inc	3,800	167,098	Nishio Rent All Co	5,400	112,922
Meiji Holdings Co Lt	13,100	921,168	Nissan Chemical Corp	12,600	787,157
Mercari Inc	19,000	840,089	Nissan Motor Co Ltd	408,400	2,215,158
Minebea Mitsumi Inc	39,200	776,824	Nisshin Seifun Group	22,495	357,323
Misumi Group Inc	31,600	1,034,510	Nissin Foods Holding	8,600	736,345
Mitsubishi Chemical	122,200	738,680	Nitori Holdings Co	7,800	1,631,091
Mitsubishi Corp	149,500	3,679,398	Nitto Denko Corp	19,100	1,707,521
Mitsubishi Electric	207,000	3,120,688	Nomura Holdings Inc	481,600	2,541,758
Mitsubishi Estate	117,000	1,877,190	Nomura Real Estate	15,700	347,013
Mitsubishi Gas Chemi	24,300	557,574	Nomura Real Estate M	513	732,396
Mitsubishi Heavy	34,700	1,060,712	Nomura Research Inst	35,821	1,281,985
Mitsubishi Ufj Finan	1,551,600	6,852,917	Nsk Ltd	32,800	284,333
Mitsubishi Ufj Lease	54,700	262,255	Ntt Data Corp	73,100	999,022
Mitsui & Co Ltd	251,100	4,594,196	Obayashi Corp	153,000	1,318,901
Mitsui Chemicals Inc	19,100	558,690	Obic Co Ltd	7,500	1,505,157
Mitsui Fudosan Co Lt	94,500	1,975,214	Odakyu Electric Rail	32,300	1,012,063
Mitsui Mining & Smel	7,900	289,617	Oji Holdings Corp	156,900	890,536
Mitsui Osk Lines Ltd	17,900	546,128	Olympus Corp	105,200	2,298,718
Miura Co Ltd	9,900	551,358			
Mizuho Financial Gro	306,540	3,880,553	Security	Unit	Fair Value
Monotaro Co Ltd	22,000	1,118,698	Omron Corp	20,400	1,815,836
Ms&Ad Insurance Grou	52,200	1,587,563	Ono Pharmaceutical	106,900	3,216,991
Murata Manufacturing	59,100	5,334,998	Open House Co Ltd	8,800	322,611

Oracle Corp Japan	4,300	559,339	Softbank Group Corp	165,900	12,946,447
Oriental Land	20,600	3,399,912	Sohgo Security Servi	7,100	367,911
Orix Corp	190,700	2,925,747	Sojitz Corp	203,200	452,671
Orix Jreit Inc	274	450,629	Sompo Holdings Inc	36,600	1,478,959
Osaka Gas Co Ltd	75,600	1,545,756	Sony Corp	133,600	13,308,883
Otsuka Corp	11,800	621,744	Square Enix Holdings	11,100	671,945
Otsuka Holdings Co	48,600	2,079,192	Stanley Electric Co	13,000	418,664
Pan Pacific Internat	50,400	1,165,236	Subaru Corp	91,100	1,819,882
Panasonic Corp	228,500	2,633,686	Sumco Corp	27,400	600,042
Peptidream Inc	10,300	521,759	Sumitomo Chemical Co	159,800	639,231
Persol Holdings Co	22,200	399,727	Sumitomo Corp	153,200	2,025,454
Pigeon Corp	13,200	543,368	Sumitomo Dainippon P	22,700	334,415
Pola Orbis Holdings	12,600	255,429	Sumitomo Electric	170,800	2,259,797
Rakuten Inc	82,900	797,324	Sumitomo Forestry Co	10,100	210,521
Recruit Holdings	140,700	5,887,199	Sumitomo Heavy Indus	17,400	428,743
Renesas Electronics	83,400	869,987	Sumitomo Metal Minin	25,200	1,117,640
Resona Holdings Inc	335,700	1,171,511	Sumitomo Mitsui Fina	180,000	5,558,040
Ricoh Co Ltd	70,200	459,637	Sumitomo Mitsui Trus	31,400	965,920
Rinnai Corp	3,500	405,782	Security	Unit	Fair Value
Rohm Co Ltd	8,900	861,165	Sumitomo Realty &	35,400	1,090,681
Ryohin Keikaku Co Ltd	26,700	544,370	Sumitomo Rubber	22,600	194,161
Sankyu Inc	6,200	233,600	Sumitomo Seika Chemi	3,700	146,753
Santen Pharmaceutica	39,800	645,311	Sundrug Co Ltd	9,400	374,652
Sbi Holdings Inc/Jap	26,180	619,729	Suntory Beverage & F	18,000	636,350
Scsk Corp	2,800	159,737	Suzuken Co Ltd/Aichi	8,100	292,634
Secom Co Ltd	25,400	2,341,095	Suzuki Motor Corp Co	38,400	1,778,201
Sega Sammy Holdings	10,500	165,364	Sysmex Corp	18,500	2,221,899
Seibu Holdings Inc	22,200	217,173	T&D Holdings Inc	102,200	1,204,682
Seiko Epson Corp	29,400	435,682	Taiheiyo Cement Corp	12,600	314,619
Sekisui Chemical Co	41,800	790,696	Taisei Corp	32,800	1,129,391
Sekisui House Ltd Co	80,200	1,631,265	Taisho Pharmaceutica	4,700	315,928
Security	Unit	Fair Value	Takeda Pharmaceutica	164,038	5,966,028
Seven & I Holdings	86,700	3,071,805	Tdk Corp	13,200	1,985,529
Sg Holdings Co Ltd	34,500	939,648	Teijin Ltd	10,000	187,903
Sharp Corp/Japan	28,700	434,760	Terumo Corp	66,400	2,772,535
Shimadzu Corp	22,300	866,124	Thk Co Ltd	9,600	309,632
Shimamura Co Ltd	3,600	377,626	Tis Inc	24,900	509,600
Shimano Inc	8,400	1,957,925	Tobu Railway Co Ltd	19,200	570,914
Shimizu Corp	127,800	927,136	Toho Co Ltd/Tokyo Co	9,700	408,688
Shin-Etsu Chemical	37,000	6,463,217	Toho Gas Co Ltd	6,300	416,156
Shinsei Bank Ltd	43,600	536,316	Tohoku Electric Powe	47,900	394,353
Shionogi & Co Ltd Co	26,400	1,440,627	Tokai Rika Co Ltd	9,300	157,094
Shiseido Co Ltd	35,800	2,474,047	Tokio Marine Holding	80,600	4,143,001
Shizuoka Bank Ltd	49,200	359,785	Tokuyama Corp	7,600	170,484
Sky Perfect Jsat Hol	37,500	184,513	Tokyo Century Corp	3,800	300,702
Smc Corp	6,000	3,657,706	Tokyo Electric Power	176,600	465,254
Softbank Corp	280,600	3,512,765	Tokyo Electron Ltd	16,200	6,019,002

Tokyo Gas Co Ltd	61,700	1,424,397	Auckland International	135,374	737,843
Tokyu Corp	57,000	706,668	Fisher & Paykel	61,523	1,456,471
Tokyu Fudosan Holdin	111,000	590,237	Freightways Ltd	38,629	279,798
Toppan Printing Co	70,100	987,219	Mercury Nz Ltd	60,079	281,602
			Meridian Energy Ltd	166,520	887,219
Security	Unit	Fair Value	Ryman Healthcare Ltd	45,317	495,623
Topre Corp	7,900	120,897	Spark New Zealand Ltd	242,191	819,574
Toray Industries Inc	175,000	1,034,796			5,754,136
Toshiba Corp	71,000	1,983,282	Norway		
Tosoh Corp	58,300	907,435	Adevinta Asa	27,541	463,201
Toto Ltd	12,300	737,440	Dnb Asa	103,424	2,025,730
Toyo Ink Sc Holdings	6,400	122,241	Equinor Asa	238,388	4,035,802
Toyo Seikan Group	14,400	157,048	Gjensidige Forsikrin	19,787	441,639
Toyo Suisan Kaisha	10,700	520,258	Mowi As	54,803	1,222,545
Toyo Tire Corp	12,000	182,130	Norsk Hydro Asa	268,538	1,250,173
Toyoda Gosei Co Ltd	8,600	249,474	Orkla Asa	85,279	866,540
Toyota Boshoku Corp	12,800	207,661	Schibsted Asa	20,000	773,502
Toyota Industries	17,200	1,362,739	Subsea 7 Sa	20,804	213,290
Toyota Motor Corp	257,620	19,852,043	Telenor Asa	144,637	2,464,688
Toyota Tsusho Corp	20,800	839,091	Yara International Asa	26,248	1,091,374
1	13,800	791,283			14,848,484
Trend Micro Inc/Japa	13,600				
	4,100	582,566	Singapore		
Trend Micro Inc/Japa	,	582,566 231,961	Ascendas	402,295	907,078
Trend Micro Inc/Japa Tsuruha Holdings Inc	4,100		Ascendas Capitaland Integrate	603,721	986,674
Trend Micro Inc/Japa Tsuruha Holdings Inc Ube Industries Ltd	4,100 12,800	231,961	Ascendas Capitaland Integrate Capitaland Ltd	603,721 329,700	986,674 813,243
Trend Micro Inc/Japa Tsuruha Holdings Inc Ube Industries Ltd Unicharm Corp	4,100 12,800 42,400	231,961 2,009,015	Ascendas Capitaland Integrate Capitaland Ltd City Developments Ltd	603,721 329,700 104,700	986,674 813,243 631,377
Trend Micro Inc/Japa Tsuruha Holdings Inc Ube Industries Ltd Unicharm Corp Unipres Corp	4,100 12,800 42,400 8,900	231,961 2,009,015 83,530	Ascendas Capitaland Integrate Capitaland Ltd City Developments Ltd Security	603,721 329,700 104,700 Unit	986,674 813,243 631,377 Fair Value
Trend Micro Inc/Japa Tsuruha Holdings Inc Ube Industries Ltd Unicharm Corp Unipres Corp Uss Co Ltd	4,100 12,800 42,400 8,900 25,100	231,961 2,009,015 83,530 506,400	Ascendas Capitaland Integrate Capitaland Ltd City Developments Ltd Security Dbs Group Holdings	603,721 329,700 104,700 <b>Unit</b> 189,623	986,674 813,243 631,377 Fair Value 3,592,601
Trend Micro Inc/Japa Tsuruha Holdings Inc Ube Industries Ltd Unicharm Corp Unipres Corp Uss Co Ltd Utd Urban Invest Crp	4,100 12,800 42,400 8,900 25,100 302	231,961 2,009,015 83,530 506,400 372,948	Ascendas Capitaland Integrate Capitaland Ltd City Developments Ltd Security Dbs Group Holdings Genting Singapore Ltd	603,721 329,700 104,700 <b>Unit</b> 189,623 662,700	986,674 813,243 631,377 <b>Fair Value</b> 3,592,601 426,206
Trend Micro Inc/Japa Tsuruha Holdings Inc Ube Industries Ltd Unicharm Corp Unipres Corp Uss Co Ltd Utd Urban Invest Crp Wakita & Co Ltd	4,100 12,800 42,400 8,900 25,100 302 29,600	231,961 2,009,015 83,530 506,400 372,948 302,465	Ascendas Capitaland Integrate Capitaland Ltd City Developments Ltd Security Dbs Group Holdings Genting Singapore Ltd Keppel Corp Ltd	603,721 329,700 104,700 <b>Unit</b> 189,623 662,700 184,200	986,674 813,243 631,377 <b>Fair Value</b> 3,592,601 426,206 749,817
Trend Micro Inc/Japa Tsuruha Holdings Inc Ube Industries Ltd Unicharm Corp Unipres Corp Uss Co Ltd Utd Urban Invest Crp Wakita & Co Ltd Welcia Holdings Co	4,100 12,800 42,400 8,900 25,100 302 29,600 10,600	231,961 2,009,015 83,530 506,400 372,948 302,465 399,380	Ascendas Capitaland Integrate Capitaland Ltd City Developments Ltd Security Dbs Group Holdings Genting Singapore Ltd Keppel Corp Ltd Mapletree Commercial	603,721 329,700 104,700 <b>Unit</b> 189,623 662,700 184,200 335,300	986,674 813,243 631,377 <b>Fair Value</b> 3,592,601 426,206 749,817 537,840
Trend Micro Inc/Japa Tsuruha Holdings Inc Ube Industries Ltd Unicharm Corp Unipres Corp Uss Co Ltd Utd Urban Invest Crp Wakita & Co Ltd Welcia Holdings Co West Japan Railway	4,100 12,800 42,400 8,900 25,100 302 29,600 10,600 18,400	231,961 2,009,015 83,530 506,400 372,948 302,465 399,380 962,014	Ascendas Capitaland Integrate Capitaland Ltd City Developments Ltd Security Dbs Group Holdings Genting Singapore Ltd Keppel Corp Ltd Mapletree Commercial Mapletree Logistics	603,721 329,700 104,700 <b>Unit</b> 189,623 662,700 184,200	986,674 813,243 631,377 <b>Fair Value</b> 3,592,601 426,206 749,817
Trend Micro Inc/Japa Tsuruha Holdings Inc Ube Industries Ltd Unicharm Corp Unipres Corp Uss Co Ltd Utd Urban Invest Crp Wakita & Co Ltd Welcia Holdings Co West Japan Railway Workman Co Ltd Yakult Honsha Co Ltd	4,100 12,800 42,400 8,900 25,100 302 29,600 10,600 18,400 3,200 12,200	231,961 2,009,015 83,530 506,400 372,948 302,465 399,380 962,014 272,129	Ascendas Capitaland Integrate Capitaland Ltd City Developments Ltd Security Dbs Group Holdings Genting Singapore Ltd Keppel Corp Ltd Mapletree Commercial	603,721 329,700 104,700 <b>Unit</b> 189,623 662,700 184,200 335,300	986,674 813,243 631,377 <b>Fair Value</b> 3,592,601 426,206 749,817 537,840
Trend Micro Inc/Japa Tsuruha Holdings Inc Ube Industries Ltd Unicharm Corp Unipres Corp Uss Co Ltd Utd Urban Invest Crp Wakita & Co Ltd Welcia Holdings Co West Japan Railway Workman Co Ltd Yakult Honsha Co Ltd Yamada Holdings Co	4,100 12,800 42,400 8,900 25,100 302 29,600 10,600 18,400 3,200	231,961 2,009,015 83,530 506,400 372,948 302,465 399,380 962,014 272,129 614,461	Ascendas Capitaland Integrate Capitaland Ltd City Developments Ltd Security Dbs Group Holdings Genting Singapore Ltd Keppel Corp Ltd Mapletree Commercial Mapletree Logistics	603,721 329,700 104,700 <b>Unit</b> 189,623 662,700 184,200 335,300 389,562	986,674 813,243 631,377 <b>Fair Value</b> 3,592,601 426,206 749,817 537,840 589,509
Trend Micro Inc/Japa Tsuruha Holdings Inc Ube Industries Ltd Unicharm Corp Unipres Corp Uss Co Ltd Utd Urban Invest Crp Wakita & Co Ltd Welcia Holdings Co West Japan Railway Workman Co Ltd Yakult Honsha Co Ltd	4,100 12,800 42,400 8,900 25,100 302 29,600 10,600 18,400 3,200 12,200 85,200	231,961 2,009,015 83,530 506,400 372,948 302,465 399,380 962,014 272,129 614,461 451,395	Ascendas Capitaland Integrate Capitaland Ltd City Developments Ltd Security Dbs Group Holdings Genting Singapore Ltd Keppel Corp Ltd Mapletree Commercial Mapletree Logistics Oversea-Chinese Bank Singapore Singapore Airlines Ltd	603,721 329,700 104,700 <b>Unit</b> 189,623 662,700 184,200 335,300 389,562 413,424 911,900 147,900	986,674 813,243 631,377 Fair Value 3,592,601 426,206 749,817 537,840 589,509 3,146,859
Trend Micro Inc/Japa Tsuruha Holdings Inc Ube Industries Ltd Unicharm Corp Unipres Corp Uss Co Ltd Utd Urban Invest Crp Wakita & Co Ltd Welcia Holdings Co West Japan Railway Workman Co Ltd Yakult Honsha Co Ltd Yamada Holdings Co Yamaha Corp Yamaha Motor Co Ltd	4,100 12,800 42,400 8,900 25,100 302 29,600 10,600 18,400 3,200 12,200 85,200 14,800 62,200	231,961 2,009,015 83,530 506,400 372,948 302,465 399,380 962,014 272,129 614,461 451,395 870,123	Ascendas Capitaland Integrate Capitaland Ltd City Developments Ltd Security Dbs Group Holdings Genting Singapore Ltd Keppel Corp Ltd Mapletree Commercial Mapletree Logistics Oversea-Chinese Bank Singapore	603,721 329,700 104,700 <b>Unit</b> 189,623 662,700 184,200 335,300 389,562 413,424 911,900	986,674 813,243 631,377 <b>Fair Value</b> 3,592,601 426,206 749,817 537,840 589,509 3,146,859 1,593,833
Trend Micro Inc/Japa Tsuruha Holdings Inc Ube Industries Ltd Unicharm Corp Unipres Corp Uss Co Ltd Utd Urban Invest Crp Wakita & Co Ltd Welcia Holdings Co West Japan Railway Workman Co Ltd Yakult Honsha Co Ltd Yamada Holdings Co Yamaha Corp Yamaha Motor Co Ltd Yamato Holdings Co	4,100 12,800 42,400 8,900 25,100 302 29,600 10,600 18,400 3,200 12,200 85,200 14,800 62,200 41,900	231,961 2,009,015 83,530 506,400 372,948 302,465 399,380 962,014 272,129 614,461 451,395 870,123 1,266,952 1,067,740	Ascendas Capitaland Integrate Capitaland Ltd City Developments Ltd Security Dbs Group Holdings Genting Singapore Ltd Keppel Corp Ltd Mapletree Commercial Mapletree Logistics Oversea-Chinese Bank Singapore Singapore Airlines Ltd	603,721 329,700 104,700 <b>Unit</b> 189,623 662,700 184,200 335,300 389,562 413,424 911,900 147,900	986,674 813,243 631,377 Fair Value 3,592,601 426,206 749,817 537,840 589,509 3,146,859 1,593,833 478,956
Trend Micro Inc/Japa Tsuruha Holdings Inc Ube Industries Ltd Unicharm Corp Unipres Corp Uss Co Ltd Utd Urban Invest Crp Wakita & Co Ltd Welcia Holdings Co West Japan Railway Workman Co Ltd Yakult Honsha Co Ltd Yamada Holdings Co Yamaha Corp Yamaha Motor Co Ltd Yamato Holdings Co Yamato Holdings Co	4,100 12,800 42,400 8,900 25,100 302 29,600 10,600 18,400 3,200 12,200 85,200 14,800 62,200 41,900 13,900	231,961 2,009,015 83,530 506,400 372,948 302,465 399,380 962,014 272,129 614,461 451,395 870,123 1,266,952 1,067,740 232,103	Ascendas Capitaland Integrate Capitaland Ltd City Developments Ltd Security Dbs Group Holdings Genting Singapore Ltd Keppel Corp Ltd Mapletree Commercial Mapletree Logistics Oversea-Chinese Bank Singapore Singapore Airlines Ltd Singapore Exchange Ltd	603,721 329,700 104,700 <b>Unit</b> 189,623 662,700 184,200 335,300 389,562 413,424 911,900 147,900 89,500	986,674 813,243 631,377 <b>Fair Value</b> 3,592,601 426,206 749,817 537,840 589,509 3,146,859 1,593,833 478,956 628,427
Trend Micro Inc/Japa Tsuruha Holdings Inc Ube Industries Ltd Unicharm Corp Unipres Corp Uss Co Ltd Utd Urban Invest Crp Wakita & Co Ltd Welcia Holdings Co West Japan Railway Workman Co Ltd Yakult Honsha Co Ltd Yamada Holdings Co Yamaha Corp Yamaha Motor Co Ltd Yamato Holdings Co	4,100 12,800 42,400 8,900 25,100 302 29,600 10,600 18,400 3,200 12,200 85,200 14,800 62,200 41,900	231,961 2,009,015 83,530 506,400 372,948 302,465 399,380 962,014 272,129 614,461 451,395 870,123 1,266,952 1,067,740	Ascendas Capitaland Integrate Capitaland Ltd City Developments Ltd Security Dbs Group Holdings Genting Singapore Ltd Keppel Corp Ltd Mapletree Commercial Mapletree Logistics Oversea-Chinese Bank Singapore Singapore Airlines Ltd Singapore Exchange Ltd Singapore Technologi	603,721 329,700 104,700 <b>Unit</b> 189,623 662,700 184,200 335,300 389,562 413,424 911,900 147,900 89,500 236,100	986,674 813,243 631,377 Fair Value 3,592,601 426,206 749,817 537,840 589,509 3,146,859 1,593,833 478,956 628,427 682,406
Trend Micro Inc/Japa Tsuruha Holdings Inc Ube Industries Ltd Unicharm Corp Unipres Corp Uss Co Ltd Utd Urban Invest Crp Wakita & Co Ltd Welcia Holdings Co West Japan Railway Workman Co Ltd Yakult Honsha Co Ltd Yamada Holdings Co Yamaha Corp Yamaha Motor Co Ltd Yamato Holdings Co Yamazaki Baking Co Yaskawa Electric Corp	4,100 12,800 42,400 8,900 25,100 302 29,600 10,600 18,400 3,200 12,200 85,200 14,800 62,200 41,900 13,900	231,961 2,009,015 83,530 506,400 372,948 302,465 399,380 962,014 272,129 614,461 451,395 870,123 1,266,952 1,067,740 232,103 1,145,546	Ascendas Capitaland Integrate Capitaland Ltd City Developments Ltd Security Dbs Group Holdings Genting Singapore Ltd Keppel Corp Ltd Mapletree Commercial Mapletree Logistics Oversea-Chinese Bank Singapore Singapore Airlines Ltd Singapore Exchange Ltd Singapore Technologi Suntec Reit	603,721 329,700 104,700 <b>Unit</b> 189,623 662,700 184,200 335,300 389,562 413,424 911,900 147,900 89,500 236,100 311,300	986,674 813,243 631,377 Fair Value 3,592,601 426,206 749,817 537,840 589,509 3,146,859 1,593,833 478,956 628,427 682,406 350,953
Trend Micro Inc/Japa Tsuruha Holdings Inc Ube Industries Ltd Unicharm Corp Unipres Corp Uss Co Ltd Utd Urban Invest Crp Wakita & Co Ltd Welcia Holdings Co West Japan Railway Workman Co Ltd Yakult Honsha Co Ltd Yamada Holdings Co Yamaha Corp Yamaha Motor Co Ltd Yamato Holdings Co Yamazaki Baking Co Yaskawa Electric Corp	4,100 12,800 42,400 8,900 25,100 302 29,600 10,600 18,400 3,200 12,200 85,200 14,800 62,200 41,900 13,900 23,100 Unit	231,961 2,009,015 83,530 506,400 372,948 302,465 399,380 962,014 272,129 614,461 451,395 870,123 1,266,952 1,067,740 232,103 1,145,546 Fair Value	Ascendas Capitaland Integrate Capitaland Ltd City Developments Ltd Security Dbs Group Holdings Genting Singapore Ltd Keppel Corp Ltd Mapletree Commercial Mapletree Logistics Oversea-Chinese Bank Singapore Singapore Airlines Ltd Singapore Exchange Ltd Singapore Technologi Suntec Reit United Overseas Bank	603,721 329,700 104,700 <b>Unit</b> 189,623 662,700 184,200 335,300 389,562 413,424 911,900 147,900 89,500 236,100 311,300 133,363	986,674 813,243 631,377 Fair Value 3,592,601 426,206 749,817 537,840 589,509 3,146,859 1,593,833 478,956 628,427 682,406 350,953 2,279,477
Trend Micro Inc/Japa Tsuruha Holdings Inc Ube Industries Ltd Unicharm Corp Unipres Corp Uss Co Ltd Utd Urban Invest Crp Wakita & Co Ltd Welcia Holdings Co West Japan Railway Workman Co Ltd Yakult Honsha Co Ltd Yamada Holdings Co Yamaha Motor Co Ltd Yamato Holdings Co Yamazaki Baking Co Yaskawa Electric Corp  Security Yokohama Rubber	4,100 12,800 42,400 8,900 25,100 302 29,600 10,600 18,400 3,200 12,200 85,200 14,800 62,200 41,900 13,900 23,100  Unit 18,900	231,961 2,009,015 83,530 506,400 372,948 302,465 399,380 962,014 272,129 614,461 451,395 870,123 1,266,952 1,067,740 232,103 1,145,546  Fair Value 280,813	Ascendas Capitaland Integrate Capitaland Ltd City Developments Ltd Security Dbs Group Holdings Genting Singapore Ltd Keppel Corp Ltd Mapletree Commercial Mapletree Logistics Oversea-Chinese Bank Singapore Singapore Airlines Ltd Singapore Exchange Ltd Singapore Technologi Suntec Reit United Overseas Bank Uol Group Ltd	603,721 329,700 104,700 <b>Unit</b> 189,623 662,700 184,200 335,300 389,562 413,424 911,900 147,900 89,500 236,100 311,300 133,363 97,284	986,674 813,243 631,377 Fair Value 3,592,601 426,206 749,817 537,840 589,509 3,146,859 1,593,833 478,956 628,427 682,406 350,953 2,279,477 566,046 592,157 898,230
Trend Micro Inc/Japa Tsuruha Holdings Inc Ube Industries Ltd Unicharm Corp Unipres Corp Uss Co Ltd Utd Urban Invest Crp Wakita & Co Ltd Welcia Holdings Co West Japan Railway Workman Co Ltd Yakult Honsha Co Ltd Yamada Holdings Co Yamaha Corp Yamaha Motor Co Ltd Yamato Holdings Co Yamazaki Baking Co Yaskawa Electric Corp	4,100 12,800 42,400 8,900 25,100 302 29,600 10,600 18,400 3,200 12,200 85,200 14,800 62,200 41,900 13,900 23,100  Unit 18,900 304,300	231,961 2,009,015 83,530 506,400 372,948 302,465 399,380 962,014 272,129 614,461 451,395 870,123 1,266,952 1,067,740 232,103 1,145,546 Fair Value	Ascendas Capitaland Integrate Capitaland Ltd City Developments Ltd Security Dbs Group Holdings Genting Singapore Ltd Keppel Corp Ltd Mapletree Commercial Mapletree Logistics Oversea-Chinese Bank Singapore Singapore Airlines Ltd Singapore Exchange Ltd Singapore Technologi Suntec Reit United Overseas Bank Uol Group Ltd Venture Corp Ltd Wilmar International	603,721 329,700 104,700 <b>Unit</b> 189,623 662,700 184,200 335,300 389,562 413,424 911,900 147,900 89,500 236,100 311,300 133,363 97,284 40,300	986,674 813,243 631,377 Fair Value 3,592,601 426,206 749,817 537,840 589,509 3,146,859 1,593,833 478,956 628,427 682,406 350,953 2,279,477 566,046 592,157
Trend Micro Inc/Japa Tsuruha Holdings Inc Ube Industries Ltd Unicharm Corp Unipres Corp Uss Co Ltd Utd Urban Invest Crp Wakita & Co Ltd Welcia Holdings Co West Japan Railway Workman Co Ltd Yakult Honsha Co Ltd Yamada Holdings Co Yamaha Corp Yamaha Motor Co Ltd Yamato Holdings Co Yamazaki Baking Co Yaskawa Electric Corp  Security Yokohama Rubber Z Holdings Corp	4,100 12,800 42,400 8,900 25,100 302 29,600 10,600 18,400 3,200 12,200 85,200 14,800 62,200 41,900 13,900 23,100  Unit 18,900 304,300 15,400	231,961 2,009,015 83,530 506,400 372,948 302,465 399,380 962,014 272,129 614,461 451,395 870,123 1,266,952 1,067,740 232,103 1,145,546  Fair Value 280,813 1,839,150 704,780	Ascendas Capitaland Integrate Capitaland Ltd City Developments Ltd Security Dbs Group Holdings Genting Singapore Ltd Keppel Corp Ltd Mapletree Commercial Mapletree Logistics Oversea-Chinese Bank Singapore Singapore Airlines Ltd Singapore Exchange Ltd Singapore Technologi Suntec Reit United Overseas Bank Uol Group Ltd Venture Corp Ltd Wilmar International	603,721 329,700 104,700 Unit 189,623 662,700 184,200 335,300 389,562 413,424 911,900 147,900 89,500 236,100 311,300 133,363 97,284 40,300 255,300	986,674 813,243 631,377 Fair Value 3,592,601 426,206 749,817 537,840 589,509 3,146,859 1,593,833 478,956 628,427 682,406 350,953 2,279,477 566,046 592,157 898,230 20,451,689
Trend Micro Inc/Japa Tsuruha Holdings Inc Ube Industries Ltd Unicharm Corp Unipres Corp Uss Co Ltd Utd Urban Invest Crp Wakita & Co Ltd Welcia Holdings Co West Japan Railway Workman Co Ltd Yakult Honsha Co Ltd Yamada Holdings Co Yamaha Corp Yamaha Motor Co Ltd Yamato Holdings Co Yamazaki Baking Co Yaskawa Electric Corp  Security Yokohama Rubber Z Holdings Corp Zenkoku Hosho Co Ltd	4,100 12,800 42,400 8,900 25,100 302 29,600 10,600 18,400 3,200 12,200 85,200 14,800 62,200 41,900 13,900 23,100  Unit 18,900 304,300	231,961 2,009,015 83,530 506,400 372,948 302,465 399,380 962,014 272,129 614,461 451,395 870,123 1,266,952 1,067,740 232,103 1,145,546  Fair Value 280,813 1,839,150	Ascendas Capitaland Integrate Capitaland Ltd City Developments Ltd Security Dbs Group Holdings Genting Singapore Ltd Keppel Corp Ltd Mapletree Commercial Mapletree Logistics Oversea-Chinese Bank Singapore Singapore Airlines Ltd Singapore Exchange Ltd Singapore Technologi Suntec Reit United Overseas Bank Uol Group Ltd Venture Corp Ltd Wilmar International  Sweden Alfa Laval Ab	603,721 329,700 104,700 Unit 189,623 662,700 184,200 335,300 389,562 413,424 911,900 147,900 89,500 236,100 311,300 133,363 97,284 40,300 255,300	986,674 813,243 631,377 Fair Value 3,592,601 426,206 749,817 537,840 589,509 3,146,859 1,593,833 478,956 628,427 682,406 350,953 2,279,477 566,046 592,157 898,230 20,451,689
Trend Micro Inc/Japa Tsuruha Holdings Inc Ube Industries Ltd Unicharm Corp Unipres Corp Uss Co Ltd Utd Urban Invest Crp Wakita & Co Ltd Welcia Holdings Co West Japan Railway Workman Co Ltd Yakult Honsha Co Ltd Yamada Holdings Co Yamaha Corp Yamaha Motor Co Ltd Yamato Holdings Co Yamazaki Baking Co Yaskawa Electric Corp  Security Yokohama Rubber Z Holdings Corp Zenkoku Hosho Co Ltd	4,100 12,800 42,400 8,900 25,100 302 29,600 10,600 18,400 3,200 12,200 85,200 14,800 62,200 41,900 13,900 23,100  Unit 18,900 304,300 15,400	231,961 2,009,015 83,530 506,400 372,948 302,465 399,380 962,014 272,129 614,461 451,395 870,123 1,266,952 1,067,740 232,103 1,145,546  Fair Value 280,813 1,839,150 704,780 311,078	Ascendas Capitaland Integrate Capitaland Ltd City Developments Ltd Security Dbs Group Holdings Genting Singapore Ltd Keppel Corp Ltd Mapletree Commercial Mapletree Logistics Oversea-Chinese Bank Singapore Singapore Airlines Ltd Singapore Exchange Ltd Singapore Technologi Suntec Reit United Overseas Bank Uol Group Ltd Venture Corp Ltd Wilmar International  Sweden Alfa Laval Ab Assa Abloy Ab	603,721 329,700 104,700 Unit  189,623 662,700 184,200 335,300 389,562 413,424 911,900 147,900 89,500 236,100 311,300 133,363 97,284 40,300 255,300  30,789 103,448	986,674 813,243 631,377 Fair Value 3,592,601 426,206 749,817 537,840 589,509 3,146,859 1,593,833 478,956 628,427 682,406 350,953 2,279,477 566,046 592,157 898,230 20,451,689
Trend Micro Inc/Japa Tsuruha Holdings Inc Ube Industries Ltd Unicharm Corp Unipres Corp Uss Co Ltd Utd Urban Invest Crp Wakita & Co Ltd Welcia Holdings Co West Japan Railway Workman Co Ltd Yakult Honsha Co Ltd Yamada Holdings Co Yamaha Corp Yamaha Motor Co Ltd Yamato Holdings Co Yamazaki Baking Co Yaskawa Electric Corp  Security Yokohama Rubber Z Holdings Corp Zenkoku Hosho Co Ltd Zozo Inc	4,100 12,800 42,400 8,900 25,100 302 29,600 10,600 18,400 3,200 12,200 85,200 14,800 62,200 41,900 13,900 23,100  Unit 18,900 304,300 15,400	231,961 2,009,015 83,530 506,400 372,948 302,465 399,380 962,014 272,129 614,461 451,395 870,123 1,266,952 1,067,740 232,103 1,145,546  Fair Value 280,813 1,839,150 704,780 311,078	Ascendas Capitaland Integrate Capitaland Ltd City Developments Ltd Security Dbs Group Holdings Genting Singapore Ltd Keppel Corp Ltd Mapletree Commercial Mapletree Logistics Oversea-Chinese Bank Singapore Singapore Airlines Ltd Singapore Exchange Ltd Singapore Technologi Suntec Reit United Overseas Bank Uol Group Ltd Venture Corp Ltd Wilmar International  Sweden Alfa Laval Ab	603,721 329,700 104,700 Unit 189,623 662,700 184,200 335,300 389,562 413,424 911,900 147,900 89,500 236,100 311,300 133,363 97,284 40,300 255,300	986,674 813,243 631,377 Fair Value 3,592,601 426,206 749,817 537,840 589,509 3,146,859 1,593,833 478,956 628,427 682,406 350,953 2,279,477 566,046 592,157 898,230 20,451,689

Electrolux Ab	26,716	624,264	Security	Unit	Fair Value
Epiroc Ab	145,437	2,608,855			
Eqt Ab	20,006	513,515	Chocoladefabriken Lindt &Sp Ag	147	2,427,830
Essity Ab	105,907	3,425,111	Cie Financiere Riche	54,737	4,958,809
<b>Evolution Gaming Gro</b>	28,387	2,895,196	Clariant Ag	17,020	362,369
Fastighets Ab Balder	10,811	564,735	Credit Suisse Group	401,753	5,181,271
Hennes & Mauritz Ab	82,190	1,730,858	Ems-Chemie Holding Ag	1,278	1,233,253
Hexagon Ab	30,498	2,801,528	Geberit Ag	6,833	4,284,008
Husqvarna Ab	53,903	700,324	Givaudan Sa	1,088	4,591,029
Ica Gruppen Ab	10,242	513,437	Julius Baer Group Ltd	21,720	1,253,148
Industrivarden Ab	26,956	879,563	Kuehne + Nagel Int AG	7,027	1,596,269
Investment Ab Latour	7,904	193,063	Lafargeholcim Ltd	56,224	3,092,495
Security	Unit	Fair Value	Logitech International	25,792	2,506,401
Investor Ab	57,091	4,187,689	Lonza Group Ag	6,754	4,346,032
Kinnevik Ab	37,110	1,885,876	Nestle Sa	411,046	48,481,992
L E Lundbergforetage	10,322	555,531	Novartis Ag	325,385	30,788,169
Lundin Energy Ab	25,010	677,283	Partners Group Holding	1,890	2,223,655
Mips Ab	3,916	245,091	Roche Holding Ag	111,441	38,956,129
Nibe Industrier Ab	50,836	1,675,024	Schindler Holding Ag	7,181	1,937,809
Nolato Ab	2,187	221,561	Sgs Sa	742	2,240,396
Nordea Bank Abp	332,729	2,722,587	Sika Ag	14,878	4,069,801
Sandvik Ab	116,517	2,874,422	Sonova Holding Ag	6,470	1,683,466
Securitas Ab	38,070	617,460	Straumann Holding Ag	1,205	1,406,140
Sinch Ab	2,981	487,846	Swatch Group Age	8,166	1,374,180
Skandinaviska Enskil	162,816	1,683,958	Swiss Life Holding A	3,954	1,844,261
Skanska Ab	37,098	952,232	Swiss Prime Site Ag	7,569	744,099
Skf Ab	44,596	1,164,240	Swiss Re Ag	33,358	3,145,037
Stillfront Group Ab	29,480	357,706	Swisscom Ag	2,998	1,618,130
Svenska Cellulosa Ab	60,297	1,057,623	Temenos Ag	6,403	895,312
Svenska Handelsbanke	192,185	1,940,442	Ubs Group Ag	388,465	5,480,127
Swedbank Ab	103,284	1,823,069	Vat Group Ag	2,340	583,974
Swedish Match Ab	30,097	2,346,177	Vifor Pharma Ag	4,380	688,502
Tele2 Ab	45,703	606,587	Zurich Insurance Group	17,576	7,426,479
Telefonaktiebolaget	387,464	4,627,364			203,628,337
Telia Co Ab	268,904	1,116,211			
Thule Group Ab	8,644	324,391			
Volvo Ab	151,091	3,586,606 <b>65,987,754</b>			
Switzerland					
ABB Ltd	217,600	6,082,806			
Adecco Group Ag	19,634	1,314,042			
Alcon Inc	44,258	2,946,027			
Baloise Holding Ag	5,823	1,037,528			
Banque Cantonale Vau	1,608	175,180			
Barry Callebaut Ag	274	652,182			

### 24. Schedule of financial assets valued through profit or loss (continue)

#### (a) Fixed interest securities – issued by sovereign states and supranationals

Security	Unit	Fair Value	Halma Plc	42,497	1,422,655
United Kingdom			Hargreaves Lansdown	42,097	876,978
3I Group Plc	120,680	1,909,453	Hikma Pharmaceutical	17,993	619,315
Admiral Group Plc	24,523	974,141	HSBC Holdings Plc	2,755,222	14,266,556
Anglo American Plc	127,448	4,223,843	IG Group Holdings Plc	21,858	257,406
Antofagasta Plc	47,114	927,718	Imperial Brands Plc	140,950	2,958,472
Ashtead Group Plc	47,255	2,220,783	Informa Plc	169,266	1,267,027
Associated British Foods Plc	40,667	1,258,552	Intercontinental Hot	18,988	1,216,281
Astrazeneca Plc	154,845	15,502,370	Intertek Group Plc	17,766	1,371,630
Auto Trader Group Plc	137,210	1,117,853	ITv Plc	494,156	721,420
Aveva Group Plc	12,030	526,385	J Sainsbury Plc	167,571	516,533
Aviva Plc	641,599	2,852,113	JD Sports Fashion Plc	49,832	585,813
Babcock International	89,185	341,230	Johnson Matthey Plc	42,049	1,393,288
Bae Systems Plc	332,233	2,219,865	Kingfisher Plc	244,893	905,181
Barclays Plc	2,741,658	5,497,139	Land Securities Group	76,444	703,252
Barratt Developments	123,281	1,128,740	Legal & General Group	1,214,703	4,418,426
Bellway Plc	8,625	348,393	Lloyds Banking Group	9,185,976	4,575,686
Berkeley Group Holding	14,324	928,493	London Stock Exchange	28,677	3,531,138
BHP Group Plc	219,633	5,779,375	M&G Plc	445,889	1,206,521
BP Plc	2,607,350	9,081,369	Man Group Plc/Jersey	119,160	224,701
British American Tobaco	294,453	10,899,767	Meggitt Plc	129,670	826,882
British Land Co Plc	86,206	576,234	Melrose Industries	468,683	1,140,386
BT Group Plc	1,353,156	2,446,223	Security	Unit	Fair Value
Bunzl Plc	46,028	1,537,086	Mondi Plc	60,146	1,413,714
Burberry Group Plc	46,410	1,135,261	Moneysupermarket Plc	111,506	397,215
Centrica Plc	922,178	586,544	National Grid Plc	406,864	4,810,807
Coca-Cola Hbc Ag	25,515	826,602	Natwest Group Plc	1,212,099	2,775,271
Compass Group Plc	223,455	4,163,308	Next Plc	13,505	1,308,122
Croda International	28,228	2,538,204	Nmc Health Plc	6,918	473
Dcc Plc	13,618	963,891	Ocado Group Plc	43,970	1,366,182
Diageo Plc	277,858	10,931,160	Osb Group Plc	33,866	196,098
Diploma Plc	13,087	391,417	Paypoint Plc	13,809	123,073
Direct Line Insurance	170,443	743,229	Pearson Plc	78,866	732,649
Diversified Gas & Oil	136,358	210,626	Persimmon Plc	41,143	1,556,172
Security	Unit	Fair Value	Phoenix Group Holding	29,337	280,956
Entain Plc	52,872	819,219	Prudential Plc	339,023	6,242,367
Evraz Plc	56,952	367,143	Rathbone Brothers Plc	7,499	157,862
Experian Plc	134,588	5,108,987	Reckitt Benckiser	81,839	7,318,523
Ferguson Plc	26,450	3,211,360	Relx Plc	230,502	5,647,893
Flutter Entertainment	3,041	625,820	Rentokil Initial Plc	190,351	1,325,460
Fresnillo Plc	8,742	134,974	Rio Tinto Plc	156,591	11,708,646
Games Workshop Group	2,165	331,458	Rolls-Royce Holdings	902,027	1,371,741
Gamma Communications	7,923	176,535	Royal Dutch Shell Plc	1,086,398	18,993,648
Glaxosmithkline Plc	747,306	13,708,930	Royal Mail Plc	128,793	594,357
Glencore Plc	1,022,354	3,256,190	RSA Insurance Group	105,861	980,243
Gulf Keystone Petrol	303,857	508,397	Rws Holdings Plc	33,606	245,307

Sage Group Plc	139,047	1,106,209	Agilent Technologies	32,985	3,906,084
Schroders Plc	14,175	646,594	Agnc Investment Corp	63,457	989,929
Segro Plc Reit Gbp 1	128,790	1,665,780	Air Lease Corp	6,898	306,409
Severn Trent Plc	25,225	788,932	Air Products And	28,079	7,670,060
Smith & Nephew Plc	88,871	1,834,381	Akamai Technologies	14,386	1,509,379
Smiths Group Plc	46,634	958,745	Albemarle Corp	12,078	1,781,626
Spirax-Sarco Enginee	7,646	1,180,519	Alexandria Real Esta	12,633	2,249,937
SSE Plc	120,117	2,462,088	Alexion Pharmaceutic	23,201	3,622,372
St James'S Place Plc	57,652	891,706	Align Technology Inc	9,455	5,047,741
			Alleghany Corp	1,764	1,065,826
Security	Unit	Fair Value	Allegion Plc	10,424	1,213,145
Standard Chartered	471,692	3,003,382	Alliant Energy Corp	29,828	1,535,844
Standard Life Aberden	260,069	1,000,025	Allison Transmission	16,420	708,195
Taylor Wimpey Plc	407,030	921,659	Allstate Corp	36,456	4,007,244
Tesco Plc	1,018,881	3,222,845	Ally Financial Inc C	69,736	2,486,786
Ultra Electronics	24,714	699,980	Alnylam Pharmaceutic	10,391	1,350,518
Unilever Plc	326,943	19,628,492	Alphabet Inc	82,883	145,133,488
United Utilities Group	73,390	897,868	Altice Usa Inc	15,760	596,674
Vistry Group Plc	39,967	510,544	Altria Group Inc	247,539	10,146,624
Vodafone Group Plc	3,551,268	5,870,918	Amazon.Com Inc	45,104	146,877,117
Whitbread Plc	20,789	880,659	Amc Networks Inc	5,593	200,062
WM Morrison Supermar	258,426	626,321	Amcor Plc	162,600	1,912,176
WPP Plc	196,662	2,150,078	Amdocs Ltd	36,928	2,619,303
		288,536,431	Amerco	923	419,208
United States of America			Ameren Corp	30,291	2,363,001
10X Genomics Inc	6,278	888,149	American Electric Po	51,759	4,306,866
3M	95,169	16,623,169	American Express Co	73,217	8,849,739
A O Smith Corp	17,527	960,655	American Financial G	13,461	1,179,453
Abbott Laboratories	197,305	21,591,086	American Internation	137,744	5,213,610
Abbvie Inc	246,364	26,365,875	American Tower Corp	40,886	9,170,730
Abiomed Inc	5,105	1,654,735			
Accenture Plc	85,664	22,348,881	Security	Unit	Fair Value
Acm Research Inc	2,158	175,424	American Water Works	19,374	2,971,584
Activision Blizzard	90,180	8,369,606	Ameriprise Financial	19,670	3,822,274
Acuity Brands Inc	6,063	734,169	Amerisourcebergen	15,774	1,541,435
Adapthealth Corp	5,708	214,335	Ametek Inc	26,959	3,258,804
Adient Plc	13,926	484,207	Amgen Inc	84,425	19,404,242
Adobe Inc	61,638	30,793,112	Amphenol Corp	34,629	4,528,088
Adt Inc	25,438	199,434	Analog Devices Inc	39,020	5,757,791
Advance Auto Parts I	7,891	1,242,280	Annaly Mortgage Mgmt	163,236	1,377,712
Advanced Energy	2,704	262,207	Ansys Inc	11,262	4,092,836
Advanced Micro Devic	114,166	10,466,739	Antero Midstream Cor	29,421	226,836
Aercap Holdings Nv	7,267	331,157	Anthem Inc	33,105	10,629,684
Aes Corp	82,128	1,929,187	Aon Plc	25,783	5,444,080
Security	Unit	Fair Value	Api Group Corp	21,609	392,203
Affiliated Managers	6,781	689,492	Apollo Global Manage	15,174	742,919
Aflac Inc	116,444	5,177,100	Apple Hospitality Re	34,855	449,630

Apple Inc	2,071,726	274,669,433	Boeing Co	49,337	10,555,158
Applied Materials In	129,339	11,155,489	Bonanza Creek Energy	14,560	281,154
Aptiv Plc	28,116	3,662,952	Booking Holdings Inc	4,685	10,411,663
Aramark	26,755	1,029,532	Booz Allen Hamilton	14,357	1,251,500
Arch Capital Group L	46,574	1,679,924			
Archer-Daniels-Midla	65,764	3,314,506	Security	Unit	Fair Value
Arcturus Therapeutic	6,202	269,229	Borgwarner Inc	77,145	2,980,111
Arista Networks Inc	5,944	1,725,900	Boston Beer Co Inc/T	926	920,713
Arrow Electronics In	8,444	821,686	Boston Properties In	17,193	1,623,879
Arthur J Gallagher &	19,622	2,427,241	Boston Scientific Co	129,318	4,646,396
Artisan Partners Ass	6,540	329,224	Brighthouse Financia	13,610	492,682
Asbury Automotive Gr	2,869	418,128	Brinker Internationa	7,478	423,030
Assurant Inc	5,784	788,070	Bristol-Myers Squibb	326,005	20,209,050
Assured Guaranty Ltd	13,844	435,948	Broadcom Inc	46,980	20,570,193
At&T Inc	995,743	28,627,611	Broadridge Financial	16,748	2,565,626
Athene Holding Ltd	35,930	1,550,020	Brown & Brown Inc	30,390	1,440,790
Atkore International	7,947	326,701	Brown-Forman Corp	32,138	2,552,400
			Brunswick Corp/De	4,505	343,461
Security	Unit	Fair Value	Buckle Inc	10,890	317,988
			Bunge Ltd	15,755	1,032,583
Atmos Energy Corp	12,486	1,191,164	Burlington Stores In	5,832	1,525,360
Autodesk Inc	24,761	7,560,524	Cable One Inc	457	1,018,068
Autoliv Inc	8,829	812,798	Cabot Oil & Gas Corp	56,321	916,906
Automatic Data Proce	50,294	8,861,803	Cadence Design Syste	30,284	4,127,104
Autonation Inc	8,408	586,794	Camden Property Tst	13,000	1,299,350
Autozone Inc	2,347	2,783,237	Campbell Soup Co	21,579	1,043,345
Avalara Inc	7,135	1,176,490	Canadian Solar Inc	5,317	272,230
Avalonbay Communitie	16,214	2,601,050	Capital One Financia	61,971	6,125,214
Avantor Inc	49,444	1,391,354	Capri Holdings Ltd	11,100	465,756
Avery Dennison Corp	8,456	1,311,272	Cardinal Health Inc	29,913	1,601,542
Axalta Coating Syste	23,609	674,037	Caredx Inc	4,023	291,426
Baker Hughes	68,539	1,428,353	Carlyle Group Inc	10,846	340,890
Ball Corp	34,196	3,186,383	Carmax Inc	14,406	1,359,782
Bank Of America Corp	894,432	27,101,290	Carnival Corp	61,027	1,321,235
Bank Of New York Mel	147,024	6,238,228	Carrier Global Corp	75,077	2,831,154
Baxter International	45,776	3,671,235	Carvana Co	5,536	1,326,093
Becton Dickinson And	26,398	6,605,308	Catalent Inc	14,663	1,524,512
Berkshire Hathaway I	189,525	43,939,476	Catalyst Pharmaceuti	38,404	128,269
Berry Corp	30,972	113,977	,	,	,
Berry Global Group I	8,320	467,501	Security	Unit	Fair Value
Best Buy Co Inc	24,511	2,445,708	Caterpillar Inc	50,149	9,123,106
Big Lots Inc	3,886	166,787	Cboe Global Markets	11,406	1,060,074
Biogen Inc	16,852	4,120,314	Cbre Group Inc	36,899	2,313,567
Biomarin Pharmaceuti	17,482	1,530,899	Cdw Corp/De	14,517	1,910,873
Bio-Rad Laboratories	2,881	1,679,277	Celanese Corp	13,315	1,730,151
Black Knight Inc	17,083	1,509,112	Centene Corp	61,038	3,663,501
Blackrock Inc	16,141	11,639,114	Centerpoint Energy I	58,162	1,258,044
Blackstone Group Inc	70,725	4,583,687	· · · · · · · · · · · · · · · · · · ·	,	,, - · ·

Century Communities	4,137	181,118	Copart Inc	26,327	3,349,321
Centurylink Inc	99,091	965,146	Corcept Therapeutics	12,157	318,027
Ceridian Hcm Holding	11,488	1,224,046	Corning Inc	79,481	2,862,111
Cerner Corp	31,603	2,478,623	Corteva Inc	78,711	3,047,690
Cf Industries Holdin	24,818	960,457	Costar Group Inc	4,202	3,881,177
Ch Robinson Worldwid	17,198	1,613,000	Costco Wholesale Cor	54,254	20,426,088
Change Healthcare In	30,949	576,889	Coupa Software Inc	6,081	2,059,270
Charles Schwab Corp/	163,017	8,644,792	Crocs Inc	5,042	315,932
Charter Communicatio	15,358	10,160,085	Crowdstrike Holdings	13,069	2,768,014
Check Point Software	34,191	4,544,326	Crown Castle Interna	44,926	7,149,074
Chemed Corp	437	233,249	Crown Holdings Inc	15,095	1,512,972
Chemours Co	26,297	651,640	Csw Industrials Inc	1,958	218,297
Cheniere Energy Inc	21,720	1,304,069			
Chevron Corp	228,085	19,248,093	Security	Unit	Fair Value
Chewy Inc	7,631	686,027	Csx Corp	81,133	7,362,008
Chipotle Mexican Gri	2,418	3,353,065	Cummins Inc	17,484	3,968,343
Chubb Ltd	58,814	9,047,946	Curtiss-Wright Corp	5,884	684,662
Church & Dwight Co I	32,993	2,876,660	Cvs Health Corp	139,441	9,521,031
Cigna Corp	40,069	8,341,564	Cyberark Software Lt	4,068	657,063
Cimarex Energy Co	16,237	608,888	Dana Inc	19,049	371,646
Cincinnati Financial	19,458	1,698,100	Danaher Corp	76,770	17,048,314
Cintas Corp	9,297	3,280,632	Darden Restaurants I	14,345	1,708,776
Cisco Systems Inc	584,016	26,117,196	Datadog Inc	13,706	1,348,945
Citigroup Inc	281,234	17,338,076	Davita Inc	9,160	1,074,743
Citizens Financial G	44,987	1,608,285	Deere & Co	31,694	8,519,981
			Dell Technologies In	26,442	1,937,934
Security	Unit	Fair Value	Delta Air Lines Inc	25,813	1,037,424
Citrix Systems Inc	13,565	1,764,400	Deluxe Corp	12,584	367,453
Clarivate Plc	16,958	503,822	Dentsply Sirona Inc	20,965	1,097,098
Clorox Co	23,177	4,679,668	Dexcom Inc	8,711	3,220,544
Cloudflare Inc	13,731	1,043,281	Diamondback Energy I	9,033	437,017
Cme Group Inc	37,546	6,829,993	Digital Realty Trust	24,261	3,384,410
Cms Energy Corp	34,984	2,134,024	Digital Turbine Inc	11,656	659,147
Cnx Resources Corp	53,100	573,480	Discover Financial	47,551	4,303,841
Coca-Cola Co	545,029	29,873,039	Discovery Inc	85,854	2,432,988
Coca-Cola European	24,150	1,202,670	Dish Network Corp	27,118	876,996
Cognex Corp	28,053	2,252,095	Docusign Inc	19,921	4,428,438
Cognizant Technology	64,249	5,265,206	Dollar General Corp	26,395	5,550,605
Colgate-Palmolive Co	139,018	11,877,698	Dollar Tree Inc	24,929	2,690,587
Comcast Corp	516,538	27,066,591	Dominion Energy Inc	87,374	6,567,030
Conagra Brands Inc	43,478	1,576,078	Domino'S Pizza Inc	4,001	1,533,543
Concho Resources Inc	22,902	1,335,645	Donaldson Co Inc	6,358	355,285
Conocophillips	112,923	4,514,662	Dover Corp	14,286	1,803,465
Consolidated Edison	38,258	2,763,375	Dow Inc	77,913	4,323,392
Constellation Brands	17,570	3,848,006	Dr Horton Inc	65,163	4,489,731
Cooper Cos Inc	4,947	1,797,344	Draftkings Inc	14,487	674,370
Cooper Tire & Rubber	6,165	249,683			

Security	Unit	Fair Value	F5 Networks Inc	7,166	1,260,786
Dropbox Inc	32,675	724,732	Facebook Inc	303,534	82,867,817
Dte Energy	22,185	2,692,593	Factset Research Sys	8,514	2,830,820
Duke Energy Corp	87,875	8,040,563	Fair Isaac Corp	2,548	1,302,104
Duke Realty Corp Rei	41,083	1,641,677	Fastenal	95,049	4,638,391
Dupont De Nemours In	76,924	5,470,066	Federated Hermes Inc	42,856	1,238,110
Dynatrace Inc	27,657	1,196,718	Fedex Corp	29,574	7,677,706
Eastman Chemical	15,626	1,566,819	Fidelity National	96,979	10,548,956
Eaton Corp Plc	42,384	5,091,590	Fifth Third Bancorp	74,624	2,056,637
Ebay Inc	105,777	5,313,179	First Bancorp/Puerto	31,355	289,093
Ecolab Inc	27,312	5,907,312	First Republic Bank/	17,845	2,620,895
Edison International	39,002	2,448,936	Firstenergy Corp	61,542	1,883,185
Edwards Lifesciences	65,293	5,954,069	Fiserv Inc	60,077	6,835,561
Elanco Animal Health	37,807	1,159,541	Five9 Inc	1,816	316,002
Electronic Arts Inc	30,718	4,410,798	Fleetcor Technologie	7,587	2,069,885
Eli Lilly And Corp	113,761	19,188,068	Fmc Corp	12,717	1,461,438
Emerson Electric	73,358	5,893,582	Foot Locker Inc	14,245	576,068
Encore Capital Group	4,577	178,274	Ford Motor	414,067	3,635,508
Enphase Energy Inc	16,693	2,929,121	Formfactor Inc	8,412	361,968
Entegris Inc	3,245	311,877	Fortinet Inc	22,462	3,333,136
Entergy Corp	20,989	2,095,332			
Eog Resources Inc	61,284	3,053,782	Security	Unit	Fair Value
Epam Systems Inc	9,663	3,459,741	Fortive Corp	31,249	2,212,429
Eqt Corp	31,222	396,832	Fortune Brands Home	15,375	1,316,869
Equifax Inc	10,984	2,118,045	Fox Corp	53,174	1,542,057
Equinix Inc Reit Usd	8,003	5,710,461	Franklin Resources I	79,147	1,977,092
Equitable Holdings I	74,991	1,918,270	Freeport-Mcmoran Inc Frontdoor Inc	193,483	5,032,493
Equity Lifestyle Equity Residential	16,238 42,671	1,028,515	Garmin Ltd	12,501 28,077	627,675
Erie Indemnity Co	3,056	2,527,830 750,492	Garmin Ltd Gartner Inc	7,764	3,356,605 1,243,638
Essent Group Ltd	12,711	549,369	Generac Holdings Inc	15,902	3,616,274
Essential Utilities	27,034	1,278,438	General Dynamics Cor	29,521	4,392,134
Essex Ppty Trust Inc	7,481	1,776,064	General Electric	931,985	10,056,118
Essent pty 114st me	7,101	1,7,0,001	General Mills Inc	64,215	3,774,558
Security	Unit	Fair Value	General Motors Co	136,839	5,696,608
Estee Lauder Cos Inc	23,699	6,305,593	Gentex Corp	46,629	1,582,122
Etsy Inc	15,204	2,702,815	Genuine Parts	18,102	1,817,803
Evercore Inc	4,921	539,538	Gilead Sciences Inc	168,548	9,816,236
Everest Re Group Ltd	9,940	2,326,755	Global Payments Inc	29,056	6,251,980
Evergy Inc	26,310	1,458,890	Globe Life Inc	12,652	1,200,422
Eversource Energy	39,797	3,442,441	Gms Inc	6,727	205,039
Exact Sciences Corp	14,376	1,904,676	Godaddy Inc	14,906	1,236,453
Exelon Corp	114,157	4,817,425	Goldman Sachs Group	39,592	10,428,137
Expedia Group Inc	12,145	1,607,148	Goodyear Tire & Rubb	38,826	423,592
Expeditors Internati	19,251	1,829,808	Graco Inc	6,406	463,538
Extra Space Storage	14,591	1,690,221	Graftech Internation	35,600	379,140
Exxon Mobil Corp	501,287	20,653,024	Greenbrier Cos Inc/T	5,300	192,708

Group 1 Automotive I	1,320	173,105	International Busine	99,154	12,473,573
Guidewire Software I	7,341	945,374	International Flavor	10,330	1,123,697
H&R Block Inc	32,027	507,948	International Paper	38,237	1,899,614
Halliburton	92,799	1,753,901	International Seaway	16,793	274,398
Halozyme Therapeutic	9,696	414,019	Interpublic Group Of	44,486	1,045,866
Hanesbrands Inc	31,846	463,996	Intuit Inc	35,024	13,302,465
Hartford Financial	52,631	2,577,340	Intuitive Surgical I	12,418	10,146,624
			Invesco Ltd	76,194	1,327,299
Security	Unit	Fair Value	Invitation Homes Inc	63,225	1,877,150
Hasbro Inc	13,649	1,275,772	Ionis Pharmaceutical	11,385	643,708
Hea Healthcare Inc	28,437	4,676,465	Ipg Photonics Corp	3,890	868,598
Healthpeak Propertie	60,439	1,826,467	Iqvia Holdings Inc	17,295	3,096,670
Heico Corp	11,693	1,443,418	Iron Mtn Inc	32,951	971,066
Henry Schein Inc	18,322	1,224,459	J M Smucker Co	12,990	1,500,995
Herman Miller Inc	4,103	138,681	J2 Global Inc	5,762	562,890
Hershey Co	30,318	4,618,038	Jack Henry & Associa	8,792	1,422,634
Hess Corp	26,858	1,417,565	Jacobs Engineering G	13,751	1,498,309
Hewlett Packard	204,236	2,420,197	Jardine Matheson Hol	24,300	1,360,800
Hilton Worldwide Hol	29,171	3,247,024	Jardine Strategic	29,000	721,520
Hologic Inc	35,294	2,570,462	Jazz Pharmaceuticals	9,863	1,628,283
Home Depot Inc	143,981	38,219,756	Jb Hunt Transport	9,506	1,298,995
Honeywell Internatio	85,632	18,207,932	Jefferies Financial	19,644	483,242
Hongkong Land Holdin	261,000	1,077,930	Johnson & Johnson Co	374,211	58,837,196
Horizon Therapeutics	46,584	3,408,085	Johnson Controls	78,611	3,661,700
Hormel Foods Corp	33,725	1,571,585	Jpmorgan Chase & Co	354,040	44,948,918
Host Hotels & Resort	90,600	1,324,572	Juniper Networks Inc	39,100	879,750
Houlihan Lokey Inc	15,489	1,041,325	Kansas City Southern	9,937	2,028,440
Howmet Aerospace Inc	37,814	1,078,455	Kb Home	9,867	330,742
Hp Inc	220,437	5,418,341			
Hubspot Inc	3,911	1,550,477	Security	Unit	Fair Value
Humana Inc	13,863	5,679,117	Kellogg	26,931	1,675,647
Huntington Bancshare	167,325	2,111,642	Keurig Dr Pepper Inc	54,250	1,736,000
Huntington Ingalls	4,562	777,730	Keycorp	102,940	1,688,216
Iac/Interactivecorp	7,746	1,466,318	Keysight Technologie	34,748	4,589,863
Idex Corp	8,731	1,739,128	Kimberly-Clark Corp	65,632	8,845,225
Idexx Laboratories I	9,772	4,878,866	Kinder Morgan Inc Co	211,932	2,894,991
Ihs Markit Ltd	40,364	3,621,862	Kkr & Co Inc	45,666	1,849,473
Illinois Tool Works	42,317	8,623,358	Kla Corp	21,394	5,538,479
Illumina Inc	15,394	5,695,780	Knight-Swift	14,615	611,345
Incyte Corp	21,824	1,895,851	Kraft Heinz Co	74,862	2,593,968
Ingersoll Rand Inc	34,920	1,590,257	Kroger Co	82,139	2,607,913
			L Brands Inc	8,011	297,849
Security	Unit	Fair Value	L3Harris Technologie	22,622	4,271,260
Inphi Corp	3,310	531,156	Laboratory Corp Of	10,200	2,075,394
Insulet Corp	5,905	1,509,495	Lam Research Corp	19,773	9,329,099
Intel Corp	626,580	31,222,481	Lamb Weston Holdings	16,358	1,287,865
Intercontinental Exc	57,189	6,591,032	Las Vegas Sands Corp	35,850	2,136,660

Lear Corp	14,767	2,348,396	Medtronic Plc	164,486	19,254,731
Leidos Holdings Inc	14,212	1,493,255	Melco Resorts &	18,980	352,079
Lennar Corp	47,003	3,581,629			
Lennox International	4,438	1,217,077	Security	Unit	Fair Value
Lgi Homes Inc	2,560	271,053	Mercadolibre Inc	4,088	6,835,095
Liberty Broadband	17,599	2,782,844	Merck & Co Inc	344,664	28,183,175
Liberty Global Plc	62,028	1,476,699	Meritage Homes Corp	5,534	458,326
Liberty Media	50,871	2,192,228	Meritor Inc	13,746	383,513
Lincoln National Cor	53,917	2,712,025	Metlife Inc	116,081	5,448,842
Linde Plc	55,937	14,732,128	Mettler-Toledo	2,180	2,485,135
Lithia Motors Inc	1,504	440,176	Mgic Investment Corp	31,793	398,684
Live Nation Entertai	14,299	1,050,548	Mgm Resorts Internat	53,518	1,685,282
Liveramp Holdings In	6,689	489,568	Microchip Technology	22,878	3,154,876
Lkq Corp	37,933	1,336,380	Micron Technology In	141,940	10,669,630
Lockheed Martin Corp	26,678	9,464,287	Microsoft Corp	890,605	197,874,619
			Mid-America Apartmnt	14,106	1,786,525
Security	Unit	Fair Value	Mks Instruments Inc	3,202	481,741
Loews Corp	28,675	1,290,662	Moderna Inc	33,697	3,514,597
Lowe'S Cos Inc	80,613	12,938,387	Mohawk Industries In	7,531	1,060,666
Lululemon Athletica	13,004	4,523,311	Molina Healthcare In	5,366	1,141,080
Lyondellbasell Indus	27,858	2,553,743	Molson Coors Beverag	21,457	969,427
M&T Bank Corp	13,348	1,698,666	Mondelez Internation	152,044	8,883,931
Macerich	21,377	228,093	Mongodb Inc	4,470	1,604,909
Malibu Boats Inc	3,373	210,610	Monolithic Power Sys	5,662	2,073,368
Marathon Oil Corp	112,408	748,637	Monster Beverage Cor	63,527	5,869,895
Marathon Petroleum C	68,520	2,833,302	Moody'S Corp	19,836	5,750,060
Markel Corp	1,716	1,772,474	Moog Inc-Class A	3,500	277,550
Marketaxess Holdings	4,027	2,294,182	Morgan Stanley	145,948	9,998,897
Marriott Internation	24,817	3,273,859	Mosaic Co	56,226	1,293,198
Marsh & Mclennan Cos	67,232	7,865,472	Motorola Solutions I	15,374	2,613,580
Martin Marietta Mate	6,524	1,852,620	Msci Inc	8,775	3,916,809
Marvell Technology G	94,609	4,496,766	Murphy Oil Corp	23,238	281,180
Masco Corp	27,462	1,507,115	Nasdaq Inc	11,838	1,569,956
Masimo Corp	4,587	1,230,600	National Fuel Gas	12,764	524,728
Mastercard Inc	113,061	40,282,504	National Western Lif	600	123,894
Matador Resources	36,047	434,366	Netapp Inc	19,752	1,308,372
Match Group Inc	27,412	4,144,420			
Matson Inc	2,773	157,978	Security	Unit	Fair Value
Maxim Integrated Pro	28,538	2,527,040	Netflix Inc	44,116	23,853,962
Maxlinear Inc	9,099	347,491	Neurocrine Bioscienc	7,730	740,534
Mccormick & Co Inc/M	25,834	2,469,472	Newell Brands Inc	48,026	1,018,631
Mcdonald'S Corp	96,034	20,606,015	Newmark Group Inc	25,400	185,166
Mckesson Corp	17,159	2,984,122	Newmont Corp	73,131	4,379,816
Mdc Holdings Inc	6,711	326,155	News Corp	42,345	760,940
Mdu Resources Group	14,158	372,922	Nexstar Media Group	3,274	357,226
Medic Properties Tst	60,433	1,316,835	Nextera Energy Inc	216,456	16,680,099
Medifast Inc	2,793	548,350	Nike Inc	162,647	23,008,045

Nisource Inc	43,548	998,556	Pfizer Inc	818,715	30,112,338
Nordic American Tank	45,068	132,500	Pg&E Corp	131,537	1,637,636
Nordson Corp	5,325	1,070,059	Philip Morris	218,796	18,098,805
Norfolk Southern Cor	27,219	6,466,418	Phillips 66	45,795	3,201,986
Northern Trust Corp	21,154	1,969,226	Pinnacle West Capita	12,909	1,031,945
Northrop Grumman Cor	16,655	5,074,779	Pinterest Inc	42,001	2,767,866
Nortonlifelock Inc	81,386	1,690,387	Pioneer Natural Reso	17,270	1,964,981
Novavax Inc	13,082	1,458,120	Plains Gp Holdings L	28,750	242,938
Novocure Ltd	10,523	1,823,215	Pnc Financial Servic	44,550	6,634,386
Nrg Energy Inc	28,834	1,082,428	Pool Corp	6,831	2,544,069
Nucor Corp	30,617	1,628,212			
Nvent Electric Plc	7,338	170,902	Security	Unit	Fair Value
Nvidia Corp	74,881	39,096,119	Power Integrations I	3,607	295,341
Nvr Inc	795	3,243,528	Ppd Inc	11,814	403,921
Nxp Semiconductors N	25,309	4,024,384	Ppg Industries Inc C	24,598	3,547,524
Occidental Petroleum	103,939	1,798,145	Ppl Corp	89,247	2,515,873
Odp Corp	5,700	167,067	Principal Financial	56,483	2,799,297
Oge Energy Corp	26,586	847,030	Procter & Gamble Co/	357,926	49,748,135
Okta Inc	10,804	2,747,025	Progressive Corp	68,952	6,813,837
Old Dominion Freight	13,149	2,566,290	Prologis Inc Reit Us	77,104	7,683,414
Omega Healthcare Inv	22,717	825,309	Prudential Financial	64,378	5,025,347
Omnicom Group Inc	58,169	3,625,092	Ptc Inc	9,689	1,158,029
On Semiconductor Cor	36,832	1,205,511	Public Service Enter	58,579	3,413,984
			Public Storage Reit	19,999	4,615,769
Security	Unit	Fair Value	Pultegroup Inc	62,826	2,708,429
Oneok Inc	45,715	1,754,085	Purple Innovation In	8,177	269,350
	*	, ,		-,	20,,500
Onto Innovation Inc	3,910	185,921	Qorvo Inc	23,014	3,823,086
Onto Innovation Inc Oracle Corp	· ·		Qorvo Inc Qualcomm Inc	•	
	3,910	185,921		23,014	3,823,086
Oracle Corp O'Reilly Automotive Otis Worldwide Corp	3,910 299,086 7,754 37,488	185,921 19,341,892 3,509,228 2,531,940	Qualcomm Inc Quest Diagnostics In Quidel Corp	23,014 153,657	3,823,086 23,386,595
Oracle Corp O'Reilly Automotive Otis Worldwide Corp Owens & Minor Inc	3,910 299,086 7,754	185,921 19,341,892 3,509,228	Qualcomm Inc Quest Diagnostics In	23,014 153,657 32,786	3,823,086 23,386,595 3,906,780
Oracle Corp O'Reilly Automotive Otis Worldwide Corp Owens & Minor Inc Owens Corning	3,910 299,086 7,754 37,488 9,502 13,467	185,921 19,341,892 3,509,228 2,531,940 257,029 1,020,260	Qualcomm Inc Quest Diagnostics In Quidel Corp Radian Group Inc Range Resources Corp	23,014 153,657 32,786 8,416 30,764 42,847	3,823,086 23,386,595 3,906,780 1,511,682 623,279 287,075
Oracle Corp O'Reilly Automotive Otis Worldwide Corp Owens & Minor Inc Owens Corning Paccar Inc	3,910 299,086 7,754 37,488 9,502 13,467 36,180	185,921 19,341,892 3,509,228 2,531,940 257,029 1,020,260 3,117,992	Qualcomm Inc Quest Diagnostics In Quidel Corp Radian Group Inc Range Resources Corp Raymond James Financ	23,014 153,657 32,786 8,416 30,764 42,847 14,390	3,823,086 23,386,595 3,906,780 1,511,682 623,279 287,075 1,376,547
Oracle Corp O'Reilly Automotive Otis Worldwide Corp Owens & Minor Inc Owens Corning Paccar Inc Packaging Corp Of Am	3,910 299,086 7,754 37,488 9,502 13,467 36,180 10,463	185,921 19,341,892 3,509,228 2,531,940 257,029 1,020,260 3,117,992 1,441,174	Qualcomm Inc Quest Diagnostics In Quidel Corp Radian Group Inc Range Resources Corp Raymond James Financ Raytheon Technologie	23,014 153,657 32,786 8,416 30,764 42,847 14,390 153,983	3,823,086 23,386,595 3,906,780 1,511,682 623,279 287,075 1,376,547 11,015,944
Oracle Corp O'Reilly Automotive Otis Worldwide Corp Owens & Minor Inc Owens Corning Paccar Inc Packaging Corp Of Am Palo Alto Networks I	3,910 299,086 7,754 37,488 9,502 13,467 36,180 10,463 13,028	185,921 19,341,892 3,509,228 2,531,940 257,029 1,020,260 3,117,992 1,441,174 4,628,067	Qualcomm Inc Quest Diagnostics In Quidel Corp Radian Group Inc Range Resources Corp Raymond James Financ Raytheon Technologie Reality Income Corp	23,014 153,657 32,786 8,416 30,764 42,847 14,390 153,983 34,721	3,823,086 23,386,595 3,906,780 1,511,682 623,279 287,075 1,376,547 11,015,944 2,157,216
Oracle Corp O'Reilly Automotive Otis Worldwide Corp Owens & Minor Inc Owens Corning Paccar Inc Packaging Corp Of Am Palo Alto Networks I Park Hotels & Resort	3,910 299,086 7,754 37,488 9,502 13,467 36,180 10,463 13,028 25,157	185,921 19,341,892 3,509,228 2,531,940 257,029 1,020,260 3,117,992 1,441,174 4,628,067 431,443	Qualcomm Inc Quest Diagnostics In Quidel Corp Radian Group Inc Range Resources Corp Raymond James Financ Raytheon Technologie Reality Income Corp Realogy Holdings Cor	23,014 153,657 32,786 8,416 30,764 42,847 14,390 153,983 34,721 19,633	3,823,086 23,386,595 3,906,780 1,511,682 623,279 287,075 1,376,547 11,015,944 2,157,216 257,389
Oracle Corp O'Reilly Automotive Otis Worldwide Corp Owens & Minor Inc Owens Corning Paccar Inc Packaging Corp Of Am Palo Alto Networks I Park Hotels & Resort Parker-Hannifin Corp	3,910 299,086 7,754 37,488 9,502 13,467 36,180 10,463 13,028 25,157 13,563	185,921 19,341,892 3,509,228 2,531,940 257,029 1,020,260 3,117,992 1,441,174 4,628,067 431,443 3,692,120	Qualcomm Inc Quest Diagnostics In Quidel Corp Radian Group Inc Range Resources Corp Raymond James Financ Raytheon Technologie Reality Income Corp Realogy Holdings Cor Regency Centres Corp	23,014 153,657 32,786 8,416 30,764 42,847 14,390 153,983 34,721 19,633 21,856	3,823,086 23,386,595 3,906,780 1,511,682 623,279 287,075 1,376,547 11,015,944 2,157,216 257,389 995,759
Oracle Corp O'Reilly Automotive Otis Worldwide Corp Owens & Minor Inc Owens Corning Paccar Inc Packaging Corp Of Am Palo Alto Networks I Park Hotels & Resort Parker-Hannifin Corp Parsley Energy Inc	3,910 299,086 7,754 37,488 9,502 13,467 36,180 10,463 13,028 25,157 13,563 24,198	185,921 19,341,892 3,509,228 2,531,940 257,029 1,020,260 3,117,992 1,441,174 4,628,067 431,443 3,692,120 343,370	Qualcomm Inc Quest Diagnostics In Quidel Corp Radian Group Inc Range Resources Corp Raymond James Financ Raytheon Technologie Reality Income Corp Realogy Holdings Cor Regency Centres Corp Regeneron Pharmaceut	23,014 153,657 32,786 8,416 30,764 42,847 14,390 153,983 34,721 19,633 21,856 13,088	3,823,086 23,386,595 3,906,780 1,511,682 623,279 287,075 1,376,547 11,015,944 2,157,216 257,389 995,759 6,314,960
Oracle Corp O'Reilly Automotive Otis Worldwide Corp Owens & Minor Inc Owens Corning Paccar Inc Packaging Corp Of Am Palo Alto Networks I Park Hotels & Resort Parker-Hannifin Corp Parsley Energy Inc Paychex Inc	3,910 299,086 7,754 37,488 9,502 13,467 36,180 10,463 13,028 25,157 13,563 24,198 56,256	185,921 19,341,892 3,509,228 2,531,940 257,029 1,020,260 3,117,992 1,441,174 4,628,067 431,443 3,692,120 343,370 5,237,434	Qualcomm Inc Quest Diagnostics In Quidel Corp Radian Group Inc Range Resources Corp Raymond James Financ Raytheon Technologie Reality Income Corp Realogy Holdings Cor Regency Centres Corp Regeneron Pharmaceut Regions Financial	23,014 153,657 32,786 8,416 30,764 42,847 14,390 153,983 34,721 19,633 21,856 13,088 100,702	3,823,086 23,386,595 3,906,780 1,511,682 623,279 287,075 1,376,547 11,015,944 2,157,216 257,389 995,759 6,314,960 1,622,309
Oracle Corp O'Reilly Automotive Otis Worldwide Corp Owens & Minor Inc Owens Corning Paccar Inc Packaging Corp Of Am Palo Alto Networks I Park Hotels & Resort Parker-Hannifin Corp Parsley Energy Inc Paychex Inc Paycom Software Inc	3,910 299,086 7,754 37,488 9,502 13,467 36,180 10,463 13,028 25,157 13,563 24,198 56,256 4,456	185,921 19,341,892 3,509,228 2,531,940 257,029 1,020,260 3,117,992 1,441,174 4,628,067 431,443 3,692,120 343,370 5,237,434 2,015,003	Qualcomm Inc Quest Diagnostics In Quidel Corp Radian Group Inc Range Resources Corp Raymond James Financ Raytheon Technologie Reality Income Corp Realogy Holdings Cor Regency Centres Corp Regeneron Pharmaceut Regions Financial Reinsurance Group Of	23,014 153,657 32,786 8,416 30,764 42,847 14,390 153,983 34,721 19,633 21,856 13,088 100,702 8,227	3,823,086 23,386,595 3,906,780 1,511,682 623,279 287,075 1,376,547 11,015,944 2,157,216 257,389 995,759 6,314,960 1,622,309 953,509
Oracle Corp O'Reilly Automotive Otis Worldwide Corp Owens & Minor Inc Owens Corning Paccar Inc Packaging Corp Of Am Palo Alto Networks I Park Hotels & Resort Parker-Hannifin Corp Parsley Energy Inc Paychex Inc Paycom Software Inc Paypal Holdings Inc	3,910 299,086 7,754 37,488 9,502 13,467 36,180 10,463 13,028 25,157 13,563 24,198 56,256 4,456 145,188	185,921 19,341,892 3,509,228 2,531,940 257,029 1,020,260 3,117,992 1,441,174 4,628,067 431,443 3,692,120 343,370 5,237,434 2,015,003 33,976,896	Qualcomm Inc Quest Diagnostics In Quidel Corp Radian Group Inc Range Resources Corp Raymond James Financ Raytheon Technologie Reality Income Corp Realogy Holdings Cor Regency Centres Corp Regeneron Pharmaceut Regions Financial Reinsurance Group Of Renaissancere Holdin	23,014 153,657 32,786 8,416 30,764 42,847 14,390 153,983 34,721 19,633 21,856 13,088 100,702 8,227 6,234	3,823,086 23,386,595 3,906,780 1,511,682 623,279 287,075 1,376,547 11,015,944 2,157,216 257,389 995,759 6,314,960 1,622,309 953,509 1,033,722
Oracle Corp O'Reilly Automotive Otis Worldwide Corp Owens & Minor Inc Owens Corning Paccar Inc Packaging Corp Of Am Palo Alto Networks I Park Hotels & Resort Parker-Hannifin Corp Parsley Energy Inc Paychex Inc Paycom Software Inc Paypal Holdings Inc Pdc Energy Inc	3,910 299,086 7,754 37,488 9,502 13,467 36,180 10,463 13,028 25,157 13,563 24,198 56,256 4,456 145,188 10,177	185,921 19,341,892 3,509,228 2,531,940 257,029 1,020,260 3,117,992 1,441,174 4,628,067 431,443 3,692,120 343,370 5,237,434 2,015,003 33,976,896 208,934	Qualcomm Inc Quest Diagnostics In Quidel Corp Radian Group Inc Range Resources Corp Raymond James Financ Raytheon Technologie Reality Income Corp Realogy Holdings Cor Regency Centres Corp Regeneron Pharmaceut Regions Financial Reinsurance Group Of Renaissancere Holdin Renewable Energy Gro	23,014 153,657 32,786 8,416 30,764 42,847 14,390 153,983 34,721 19,633 21,856 13,088 100,702 8,227 6,234 8,041	3,823,086 23,386,595 3,906,780 1,511,682 623,279 287,075 1,376,547 11,015,944 2,157,216 257,389 995,759 6,314,960 1,622,309 953,509 1,033,722 568,177
Oracle Corp O'Reilly Automotive Otis Worldwide Corp Owens & Minor Inc Owens Corning Paccar Inc Packaging Corp Of Am Palo Alto Networks I Park Hotels & Resort Parker-Hannifin Corp Parsley Energy Inc Paychex Inc Paycom Software Inc Paypal Holdings Inc Pdc Energy Inc Peloton Interactive	3,910 299,086 7,754 37,488 9,502 13,467 36,180 10,463 13,028 25,157 13,563 24,198 56,256 4,456 145,188 10,177 17,751	185,921 19,341,892 3,509,228 2,531,940 257,029 1,020,260 3,117,992 1,441,174 4,628,067 431,443 3,692,120 343,370 5,237,434 2,015,003 33,976,896 208,934 2,691,052	Qualcomm Inc Quest Diagnostics In Quidel Corp Radian Group Inc Range Resources Corp Raymond James Financ Raytheon Technologie Reality Income Corp Realogy Holdings Cor Regency Centres Corp Regeneron Pharmaceut Regions Financial Reinsurance Group Of Renaissancere Holdin Renewable Energy Gro Republic Services In	23,014 153,657 32,786 8,416 30,764 42,847 14,390 153,983 34,721 19,633 21,856 13,088 100,702 8,227 6,234 8,041 27,402	3,823,086 23,386,595 3,906,780 1,511,682 623,279 287,075 1,376,547 11,015,944 2,157,216 257,389 995,759 6,314,960 1,622,309 953,509 1,033,722 568,177 2,638,539
Oracle Corp O'Reilly Automotive Otis Worldwide Corp Owens & Minor Inc Owens Corning Paccar Inc Packaging Corp Of Am Palo Alto Networks I Park Hotels & Resort Parker-Hannifin Corp Parsley Energy Inc Paychex Inc Paycom Software Inc Paypal Holdings Inc Pdc Energy Inc Peloton Interactive Pentair Plc	3,910 299,086 7,754 37,488 9,502 13,467 36,180 10,463 13,028 25,157 13,563 24,198 56,256 4,456 145,188 10,177 17,751 18,770	185,921 19,341,892 3,509,228 2,531,940 257,029 1,020,260 3,117,992 1,441,174 4,628,067 431,443 3,692,120 343,370 5,237,434 2,015,003 33,976,896 208,934 2,691,052 996,687	Qualcomm Inc Quest Diagnostics In Quidel Corp Radian Group Inc Range Resources Corp Raymond James Financ Raytheon Technologie Reality Income Corp Realogy Holdings Cor Regency Centres Corp Regeneron Pharmaceut Regions Financial Reinsurance Group Of Renaissancere Holdin Renewable Energy Gro	23,014 153,657 32,786 8,416 30,764 42,847 14,390 153,983 34,721 19,633 21,856 13,088 100,702 8,227 6,234 8,041	3,823,086 23,386,595 3,906,780 1,511,682 623,279 287,075 1,376,547 11,015,944 2,157,216 257,389 995,759 6,314,960 1,622,309 953,509 1,033,722 568,177
Oracle Corp O'Reilly Automotive Otis Worldwide Corp Owens & Minor Inc Owens Corning Paccar Inc Packaging Corp Of Am Palo Alto Networks I Park Hotels & Resort Parker-Hannifin Corp Parsley Energy Inc Paychex Inc Paycom Software Inc Paypal Holdings Inc Pdc Energy Inc Peloton Interactive Pentair Plc Pepsico Inc	3,910 299,086 7,754 37,488 9,502 13,467 36,180 10,463 13,028 25,157 13,563 24,198 56,256 4,456 145,188 10,177 17,751 18,770 172,100	185,921 19,341,892 3,509,228 2,531,940 257,029 1,020,260 3,117,992 1,441,174 4,628,067 431,443 3,692,120 343,370 5,237,434 2,015,003 33,976,896 208,934 2,691,052 996,687 25,505,220	Qualcomm Inc Quest Diagnostics In Quidel Corp Radian Group Inc Range Resources Corp Raymond James Financ Raytheon Technologie Reality Income Corp Realogy Holdings Cor Regency Centres Corp Regeneron Pharmaceut Regions Financial Reinsurance Group Of Renaissancere Holdin Renewable Energy Gro Republic Services In Resmed Inc	23,014 153,657 32,786 8,416 30,764 42,847 14,390 153,983 34,721 19,633 21,856 13,088 100,702 8,227 6,234 8,041 27,402 15,236	3,823,086 23,386,595 3,906,780 1,511,682 623,279 287,075 1,376,547 11,015,944 2,157,216 257,389 995,759 6,314,960 1,622,309 953,509 1,033,722 568,177 2,638,539 3,238,564
Oracle Corp O'Reilly Automotive Otis Worldwide Corp Owens & Minor Inc Owens Corning Paccar Inc Packaging Corp Of Am Palo Alto Networks I Park Hotels & Resort Parker-Hannifin Corp Parsley Energy Inc Paychex Inc Paycom Software Inc Paypal Holdings Inc Pdc Energy Inc Peloton Interactive Pentair Plc	3,910 299,086 7,754 37,488 9,502 13,467 36,180 10,463 13,028 25,157 13,563 24,198 56,256 4,456 145,188 10,177 17,751 18,770	185,921 19,341,892 3,509,228 2,531,940 257,029 1,020,260 3,117,992 1,441,174 4,628,067 431,443 3,692,120 343,370 5,237,434 2,015,003 33,976,896 208,934 2,691,052 996,687	Qualcomm Inc Quest Diagnostics In Quidel Corp Radian Group Inc Range Resources Corp Raymond James Financ Raytheon Technologie Reality Income Corp Realogy Holdings Cor Regency Centres Corp Regeneron Pharmaceut Regions Financial Reinsurance Group Of Renaissancere Holdin Renewable Energy Gro Republic Services In	23,014 153,657 32,786 8,416 30,764 42,847 14,390 153,983 34,721 19,633 21,856 13,088 100,702 8,227 6,234 8,041 27,402	3,823,086 23,386,595 3,906,780 1,511,682 623,279 287,075 1,376,547 11,015,944 2,157,216 257,389 995,759 6,314,960 1,622,309 953,509 1,033,722 568,177 2,638,539

Robert Half Internat	13,220	825,853	Sunrun Inc	11,382	789,683
Rockwell Automation	14,308	3,588,446	Svb Financial Group	5,463	2,116,475
Roku Inc	9,653	3,204,989	Synchrony Financial	87,024	3,018,863
Rollins Inc	36,102	1,409,422	Synopsys Inc	16,502	4,272,698
Roper Technologies I	11,414	4,917,722	Sysco Corp	51,103	3,794,398
Ross Stores Inc	41,768	5,129,528	T Rowe Price Group I	42,674	6,454,016
Royal Caribbean Crui	20,441	1,525,921	Take-Two Interactive	10,304	2,140,038
Royalty Pharma Plc	10,972	549,149	Tapestry Inc	27,094	841,811
Rpm International In	30,664	2,783,678	Target Corp	53,612	9,452,332
Ryder System Inc	2,897	178,745	Taylor Morrison Home	13,815	354,355
S&P Global Inc	25,782	8,464,746	Te Connectivity Ltd	38,620	4,675,723
Salesforce.Com Inc	91,247	20,279,646	Teekay Tankers Ltd	21,164	233,016
Sarepta Therapeutics	7,182	1,222,951	Tegna Inc	24,239	338,134
Sba Communications	10,076	2,840,727	Teladoc Health Inc	10,412	2,081,671
Schlumberger Nv	146,342	3,193,182	Teledyne Technologie	4,168	1,633,689
Schrodinger Inc/Unit	3,027	239,315	Teleflex Inc	4,083	1,680,236
Seagate Technology P	24,471	1,520,873	Tempur Sealy	15,076	407,052
Seagen Inc	11,002 17,011	1,926,780	Teradyne Inc	23,151	2,775,573
Sealed Air Corp Sei Investments	41,219	778,764 2,368,856	Conveite	Unit	Fair Value
			Security Tesla Inc		
Sempra Energy Sensata Technologies	30,043 18,693	3,827,478 985,869	Tesia inc  Teva Pharmaceutical	77,259 84,600	54,483,819 816,390
Servicenow Inc	17,677	9,729,774	Texas Instruments In	113,364	18,598,498
Sherwin-Williams Co/	7,659	5,627,067	Textron Inc	26,074	1,259,635
Simon Property Group	37,658	3,208,085	Thermo Fisher Scient	49,245	22,926,502
Simpson Manufacturin	6,806	636,361	Tiffany & Co	12,332	1,620,918
Sirius Xm Holdings I	109,056	692,506	Tix Cos Inc	141,814	9,688,732
Skyworks Solutions I	27,854	4,254,420	T-Mobile Us Inc	56,059	7,553,950
Slack Technologies I	37,486	1,583,409	Toll Brothers Inc	11,026	479,300
Snap Inc	82,692	4,138,735	Toro Co	11,288	1,070,554
Snap-On Inc	5,962	1,020,277	Tractor Supply	12,305	1,729,837
Shap on me	5,502	1,020,277	Trade Desk Inc	3,828	3,065,080
Security	Unit	Fair Value	Tradeweb Markets Inc	8,346	521,291
Snowflake Inc	2,826	794,813	Trane Technologies P	28,378	4,117,080
Solaredge Technologi	6,811	2,173,526	Transdigm Group Inc	5,449	3,372,114
Southern Co	110,286	6,770,458	Transunion	16,849	1,671,589
Southwest Airlines C	28,373	1,322,182	Travelers Cos Inc	29,717	4,171,078
Splunk Inc	14,382	2,443,358	Trex Co Inc	6,222	521,030
Square Inc	33,822	7,361,697	Tri Pointe Group Inc	20,135	347,127
Ss&C Technologies	22,276	1,620,579	Trimble Inc	24,358	1,627,358
Stanley Black & Deck	16,725	2,985,413	Triton International	5,826	282,561
Starbucks Corp	124,234	13,290,553	Truist Financial Cor	172,985	8,289,441
State Street rp	56,983	4,146,653	Tupperware Brands	7,869	254,877
Steel Dynamics Inc C	24,231	893,397	Twilio Inc	11,869	4,017,538
Steris Plc	9,441	1,788,125	Twitter Inc	91,695	4,964,367
Stryker Corp	36,936	9,045,626	Tyler Technologies I	4,448	1,940,662
Sun Communities Inc	10,946	1,662,478	Tyson Foods Inc	30,609	1,971,220

Deer Technologies In   87,862   4,489,062   Walt Disney Co   208,967   37,848,1924   Uglor Inc. Reit Usd 0.0   34,1553   1,3194,909   Waste Connections In   27,606   2,2406,502   Ulta Reauty Inc   6,157   1,766,804   Waster Corp   6,406   1,584,008     Ultra Clean Holdings   6,629   206,294   Waster Corp   6,406   1,584,008     Ultra Clean Holdings   74,360   1,566,136   Welter Energy Group Inc   6,308   3,338,158     Security   Unit   Fair Value   Wells Fargo & Corp   531,613   16,038,764     Unition Pacific Corp   74,360   15,466,136   Wellsower Inc   43,378   2,800,917     United Parcel Servic   96,155   16,176,156   Wersor International   8,277   649,662     United Parcel Servic   96,155   16,176,156   Wersor International   8,277   649,662     United Parcel Servic   96,155   16,076,156   Wester District Corp   31,613   3,015,6810     United Parcel Servic   96,155   16,076,156   Wester District Corp   31,072   2,720,146     United Parcel Servic   96,155   16,076,156   Wester District Corp   31,072   2,720,146     United Parcel Servic   98,455   40,048,954   Wester District Corp   31,072   3,172,204     United Parcel Servic   98,485   40,048,954   Wester District Corp   31,072   3,172,204     Universal Display   2,096   481,451   Wester Union Co   139,453   3,056,810     Universal Display   2,966   481,451   Wester Union Co   139,453   3,056,810     Universal Display   2,966   481,451   Wester Union Co   139,453   3,056,810     Universal Display   2,966   481,451   Wester Union Co   139,453   3,056,810     Universal Display   2,969   488,456   Westing-Servic Profession   1,749,730     Union Group   2,966   6,848,966   Westing-Servic Profession   1,749,730     Union Group   2,966   6,848,966   Westing-Servic Profession   1,740,730     Universal Display   2,969   4,854,141   Well-Profession   1,740,740     Universal Display   2,966   1,621,375   Willis Towers Watson   13,462   2,839,706     Verias Diancel Profession   1,840,141   1,440,441   1,440,441   1,440,441     Verias Inc   2,440,441   1,440,441   1,44						
Ugi Corp         21,922         766,393         Waster Management Inc         61,934         7,303,257           Ulta Beauty Inc         6,157         1,768,694         Waters Corp         6,406         1,584,908           Ultar Clean Holdings         6,167         1,768,694         Water Corp         6,406         1,584,908           Security         Unit         Fair Value         Wells Fargo & Corp         531,613         16,038,764           United Pactic Corp         74,360         15,466,136         Weltower Inc         43,378         2,800,917           United Pacted Servic         96,155         16,176,156         Wester Digital Corp         312,152         12,152           United Rentals Inc         7,748         1,796,761         Wester Digital Corp         312,152         12,017,69           United Hards Inc         13,132         4504,8354         Western Digital Corp         305,83         305,810           Universal Display         2,006         481,451         Western Digital Corp         31,943         305,861           Universal Display         2,006         481,451         Western Digital Corp         31,942         1,271,762           Universal Display         2,006         481,451         Western Digital Corp         31,942	_	· ·		•	· ·	
Ulta Beauty Inc         6,157         1,768,044         Waters Corp         6,609         1,584,708           Ultra Clean Holdings         6,629         20         Wayfair Inc         3,601         3,1324,791           Security         Unit         Fair Value         Weel Energy Group Inc         36,038         36,088           United Pared Servic         91,350         16,166,136         Werltower Inc         43,378         2,800,917           United Pared Servic         96,155         16,176,156         Werner Enterprises I         43,378         2,800,917           United Therapeutics         7,748         1,796,761         Wesct Planmacoutical         8,277         649,662           United Therapeutics         3,425         519,881         West Pharmacoutical         9,805         2,801,769           United Therapeutics         3,425         519,881         West Pharmacoutical         9,805         2,801,769           United Therapeutics         3,425         46,148,934         West Pharmacoutical         9,805         2,801,769           United Therapeutics         3,425         48,148         1,216,000         Westing United Therapeutics         1,702,146           United Therapeutics         3,425         48,148         1,216,000         Westing Un		· ·			· ·	
Clara Toldings         6,629         206,294         Wayfuir Inc         5,871         1,224,791           Security         Unit         Fair Value         Weel Increpy Group Inc         36,308         3,338,158           Cecurity         174,360         15,466,135         Wells Fargo & Corp         35,161         16,087,676           United Parcel Servic         96,155         16,176,156         Wester Demprises I         43,378         2,800,769           United Therapeutics         3,425         519,881         West Pharmacutical         8,277         649,662           United Therapeutics         3,425         519,881         West Pharmacutical         9,895         2,801,769           Universal Display         2,096         481,451         Western Union Co         139,453         3,056,810           Universal Display         2,096         684,896         Westernok         29,225         1,272,146           Universal Display         2,096         684,896         Westernok         29,255         1,272,146           Universal Display         2,096         684,896         Westernok         129,227         1,272,146           Universal Display         2,094,818         1,216,600         Westrock         29,225         1,272,141		· ·		_	· ·	
Security         Unit         Fair Value         Wels Fargo & Corp         31,613         16,038,764           Union Pacific Corp         74,360         15,466,136         Welltower Inc         43,378         2,800,917           United Parcel Servic         66,155         16,176,156         Werner Enterprises I         1,995         312,152           United Rentals Inc         7,748         1,796,761         Wesco International         8,277         649,662           United Therapeutics         3,425         519,881         West Pharmaceutical         9,995         2,801,769           Universal Display         2,096         484,8451         Western Digital Corp         31,072         1,201,461           Universal Health Ser         8,848         1,216,600         Westinghouse Air Bra         17,995         1,3172,234           Universal Health Ser         8,848         1,216,600         Westinghouse Air Bra         17,995         1,3172,234           Universal Health Ser         8,848         1,216,600         Westinghouse Air Bra         17,995         1,3172,234           Universal Display         2,996         684,896         Western Union Co         19,341         2,380,633           Valsor Berry Corp         42,481         2,452,411         Wisterboard Service<	•			•	· ·	
Security         Unit         Fair Value         Wells Fargo & Corp         \$31,613         16,038,764           Unino Pacific Corp         74,360         15,466,136         Weltower Inc         43,378         2,800,917           United Parcel Servic         96,155         116,176,156         Werner Enterprises I         7,959         32,121,215           United Therapeutics         3,425         519,881         West Pharmaceutical         9,895         2,801,769           United Therapeutics         3,425         519,881         West Pharmaceutical         9,895         2,801,769           Universal Display         1,936         46,048,954         Western Union Co         13,9453         3,656,810           Universal Display         2,936         684,896         Westruck         29,227         1,271,667           Universal Display         2,9485         9,757,811         Weyerhaeuser         77,112         2,584,023           Universal Display         2,9485         9,757,811         Weyerhaeuser         77,112         2,584,023           Usal Resorts Inc         41,281         2,423,96         Williams Cos Inc         127,697         2,589,048           Vail Resorts Inc         18,503         3,037,442         Security         Unit         Fair V	Ultra Clean Holdings	6,629	206,294	-	ŕ	
Union Pacific Corp         74,360         15,466,136         Welltower Ine         43,378         2,800,917           United Parcel Servic         96,155         16,176,156         Wesner Enterprises I         7,999         312,152           United Rentals Ine         7,748         1,796,761         Wesco International         8,287         76,066           United Rental Ine         3,425         519,881         West Pharmaceutical         9,895         2,29,17,79           United Rental Ine         131,392         46,048,954         Western Union Co         139,453         3,056,810           Universal Idealth Ser         8,848         1,216,600         Westinghouse Air Bra         17,995         1,317,234           Universal Idealth Ser         8,848         1,216,600         Westinghouse Air Bra         17,995         1,317,234           Universal Idealth Ser         29,848         9,757,811         Weyerhouseer         77,112         2,584,073           Universal Idealth Ser         4,442         1,155,411         Whitpool Corp         9,645         1,740,730           Valor Bancorp         29,948         9,577,811         Weyerbaceer         77,112         2,584,023           Valor Bancorp         42,871         2,423,926         Williams Cos Ine         <					· ·	
United Parcel Servic         96,155         16,176,156         Wener Enterprises I         7,959         312,152           United Rentals Ine         7,748         1,796,761         Weseo International         8,277         649,662           United Therapeutics         3,425         519,881         West Pharmaceutical         9,895         26,017,69           United Enth Group I         131,392         46,048,954         Western Union Co         139,453         3,056,810           Universal Display         2,996         481,451         Westreck         29,227         1,271,667           Universal Health Ser         8,848         1,216,600         Westrock         29,227         1,271,667           Us Bancorp         29,9485         9,757,811         Weyerhacuser         77,112         2,840,23           Vail Resorts Ine         4,142         1,155,411         Weirrbool Corp         9,645         1,740,730           Valero Energy Corp         42,871         2,423,926         Williams Cos Ine         127,697         2,559,048           Varian Medical Syste         9,265         1,621,375         Willis Towers Watson         13,492         2,839,796           Vereva Systems Ine         18,503         5,037,442         Security         Mills Towers Watson	•					
United Rentals Inc         7,748         1,796,761         Wesco International         8,277         649,662           United Therapeutics         3,425         519,881         West Pharmaceutical         9,895         2,801,769           United Elli Group I         131,332         46,048,954         Western Digital Corp         31,072         1,720,146           Universal Display         2,096         481,451         Western Union Co         139,435         3,056,810           Universal Health Ser         8,848         1,216,600         Westinghouse Air Bra         17,995         1,317,234           Unum Group         29,869         684,896         Westrock         29,227         1,271,667           Us Bancorp         209,485         9,757,811         Weyerhaeuser         77,112         2,584,023           Vall Resorts Inc         41,412         1,155,411         Whirlpool Corp         9,645         1,740,730           Valero Energy Crop         42,871         2,423,926         Williams Cos Inc         127,697         2,259,048           Varian Medical Syste         9,265         1,621,375         Willis Towers Watson         13,492         2,839,796           Versus Systems Inc         18,503         5,037,442         Security         1,41 <t< td=""><td>•</td><td>· ·</td><td></td><td></td><td>· ·</td><td>, ,</td></t<>	•	· ·			· ·	, ,
United Therapeutics         3,425         519,881         West Pharmaceutical         9,895         2,801,769           Unitedhealth Group I         131,392         46,048,954         Western Digital Corp         31,072         1,720,146           Universal Health Ser         8,848         1,216,600         Westinghouse Air Bra         17,995         1,317,234           Universal Health Ser         29,869         684,896         Westrock         29,227         1,271,667           Unium Group         29,869         7,57,811         Weyrheauser         77,112         2,584,023           Vail Resorts Inc         4,142         1,155,411         Whirlpool Corp         9,645         1,740,730           Valero Energy Corp         42,871         2,423,926         Williams Cos Inc         127,697         2,559,048           Varian Medical Syste         9,265         1,621,375         Willis Tower Watson         13,492         2,589,098           Verian Inc         18,503         5,037,442         Security         Unit         4,808         28,8191           Vereit Inc         43,418         2,127,948         Winnebago Industries         4,808         28,8191           Vereit Inc         43,418         2,127,948         Winnebago Industries         4,808 <td></td> <td>· ·</td> <td></td> <td>1</td> <td>· ·</td> <td></td>		· ·		1	· ·	
Unitedhealth Group I         131,392         46,048,954         Western Digital Corp         31,072         1,720,146           Universal Display         2,096         481,451         Western Union Co         139,453         3,056,810           Universal Health Ser         8,848         1,216,600         Westinghouse Air Bra         17,995         1,317,224           Unum Group         299,869         684,896         Westrock         29,227         1,271,667           Us Bancorp         209,485         9,757,811         Weyerhaeuser         77,112         2,584,023           Vail Resorts Inc         4,142         1,155,411         Whirlpool Corp         9,645         1,740,730           Valero Energy Corp         42,871         2,423,926         Williams Cos Inc         127,697         2,559,048           Varian Medical Syste         9,265         1,621,375         Willis Towers Watson         13,492         2,839,796           Veeva Systems Inc         18,503         5,037,442         Security         Uni         Fair-Value           Veres Systems Inc         43,418         2,127,048         Winnebago Industries         4,808         288,191           Verisk Analyties Inc         21,249         916,370         Winc Com Ltd         5,143         1,		7,748	1,796,761		· ·	*
Universal Display         2,096         481,451         Western Union Co         139,453         3,056,810           Universal Health Ser         8,848         1,216,600         Westinghouse Air Bra         17,995         1,317,234           Unum Group         29,869         684,896         Westrock         29,227         1,271,667           Us Bancorp         290,485         9,757,811         Weyerhaeuser         77,112         2,584,023           Vall Resorts Inc         4,142         1,155,411         Whirlpool Corp         127,697         2,259,048           Valero Energy Corp         42,871         2,423,926         Williams Cos Inc         127,697         2,259,048           Varian Medical Syste         9,265         1,621,375         Williams Cos Inc         127,697         2,2839,796           Vereax Systems Inc         18,503         5,037,442         Security         Unit         Fair Value           Veriat Inc         43,418         2,127,048         Winnebago Industries         4,808         288,191           Verit Inc         24,249         916,370         Wix.Com Ltd         5,14         2,824,294           Verit Inc         11,019         2,380,435         Workday Inc         16,249         3,845,500           <	United Therapeutics	3,425	519,881	West Pharmaceutical	9,895	2,801,769
Universal Health Ser         8,848         1,216,600         Westinghouse Air Bra         17,995         1,317,234           Unum Group         29,869         684,896         Westrock         29,227         1,271,667           Us Bancorp         299,485         9,757,811         Weycrhacuser         77,112         2,584,023           Vail Resorts Inc         4,142         1,155,411         Whirlpool Corp         9,65         1,747,730           Varian Medical Syste         9,265         1,621,375         Williams Cos Inc         127,697         2,589,796           Veeva Systems Inc         18,503         5,037,442         Security         Unit         Fair Value           Verits Inc         43,418         2,127,048         Winnebago Industries         4,808         288,191           Verits Inc         24,249         916,370         Wix Com Ltd         5,143         1,284,206           Verisign Inc         11,019         2,380,435         Workday Inc         16,049         3,845,500           Verisk Analytics Inc         22,335         4632,279         Wpc Carey Inc         16,284         1,149,161           Verix Pharmaceutica         23,506         5,550,002         Wynn Resorts Ltd         9,482         1,069,570           <	Unitedhealth Group I	131,392	46,048,954	Western Digital Corp	31,072	1,720,146
Unum Group         29,869         684,896         Westrock         29,227         1,271,667           Us Bancorp         209,485         9,757,811         Weyerhaeuser         77,112         2,584,023           Vail Resorts Ine         4,142         1,155,411         Whirlpool Corp         9,645         1,740,730           Valero Energy Corp         42,871         2,423,926         Williams Cos Ine         127,697         2,589,048           Varian Medical Syste         9,265         1,621,375         Willis Towers Watson         13,22         2,839,796           Veeva Systems Ine         18,503         5,037,442         Security         Unit         Fair Value           Veriats Ine         24,3418         2,127,048         Winnebago Industries         4,808         288,191           Verisign Inc         11,019         2,380,435         Workday Inc         16,049         3,845,500           Verisk Analytics Ine         23,355         4,632,279         Wp Carey Inc         16,284         1,149,161           Vericx Pharmaceutica         23,356         4,550,002         Wyn Resorts Ltd         9,482         1,069,570           Vertiv         34,414         648,614         Xcel Energy Inc         16,1519         4,099,010	Universal Display	2,096	481,451	Western Union Co	139,453	3,056,810
Us Bancorp         209,485         9,757,811         Weyerhaeuser         77,112         2,584,023           Vail Resorts Inc         4,142         1,155,411         Whirlpool Corp         9,645         1,740,730           Valero Energy Corp         42,871         2,423,926         Williams Cos Inc         127,697         2,559,048           Varian Medical Syste         9,265         1,621,375         Willis Towers Watson         13,492         2,839,796           Vevex Systems Inc         18,503         5,037,442         Security         Unit         Fair Value           Ventas Inc         43,418         2,127,048         Winnebago Industries         4,808         288,191           Vereit Inc         24,249         916,370         Wix Com Ltd         5,143         1,284,206           Verisign Inc         11,019         2,380,435         Workday Inc         16,649         3,845,500           Verisk Analytics Inc         22,335         46,812,279         Wp Carey Inc         16,284         1,149,161           Verix Pharmaceutica         23,506         5,550,002         Wynn Resorts Ltd         9,446         3,887,084           Vertiv         34,741         648,614         Xcel Energy Inc         61,519         4,099,010	Universal Health Ser	8,848	1,216,600	Westinghouse Air Bra	17,995	1,317,234
Vail Resorts Inc         4,142         1,155,411         Whirtpool Corp         9,645         1,740,730           Valero Energy Corp         42,871         2,423,926         Williams Cos Inc         127,697         2,559,048           Varian Medical Syste         9,265         1,621,375         Willis Towers Watson         13,492         2,839,796           Veeva Systems Inc         18,503         5,037,442         Security         Unit         Fair Value           Veriats Inc         43,418         2,127,048         Winnebago Industries         4,808         288,191           Verisin Inc         24,249         916,370         Wix.Com Ltd         5,143         1,284,206           Verisign Inc         11,019         2,380,435         Workday Inc         16,049         3,845,500           Verisk Analytics Inc         22,335         4,632,279         Wp Carey Inc         16,284         1,149,161           Verizon Communicatio         593,132         34,816,848         Ww Grainger Inc         9,446         3,857,084           Vertex Pharmaceutica         23,506         5,550,002         Wynn Resorts Ltd         9,482         1,069,570           Vertiv         34,741         648,614         Xcel Energy Inc         61,519         4,099,010	Unum Group	29,869	684,896	Westrock	29,227	1,271,667
Valero Energy Corp         42,871         2,423,926         Williams Cos Inc         127,697         2,559,048           Varian Medical Syste         9,265         1,621,375         Willis Towers Watson         13,492         2,839,796           Veeva Systems Inc         18,503         5,037,442         Security         Unit         Fair Value           Vertas Inc         43,418         2,127,048         Winnebago Industries         4,808         288,191           Vertis Inc         24,249         916,370         Wix.Com Ltd         5,143         1,284,206           Verisign Inc         11,019         2,380,435         Workady Inc         16,049         3,845,500           Verisk Analytics Inc         22,335         4,632,279         Wp Carey Inc         16,284         1,149,161           Verizon Communicatio         593,132         34,816,848         Ww Grainger Inc         9,446         3,857,084           Vertex Pharmaceutica         23,566         5,550,002         Wynn Resorts Ltd         9,482         1,109,010           Vf Corp         35,082         2,994,249         Xilinx Inc         25,943         3,673,787           Viacomebs Inc         97,369         3,626,995         Xpo Logistics Inc         10,576         1,260,658	Us Bancorp	209,485	9,757,811	Weyerhaeuser	77,112	2,584,023
Varian Medical Syste         9,265         1,621,375         Willis Towers Watson         13,492         2,839,796           Veeva Systems Inc         18,503         5,037,442         Security         Unit         Fair Value           Ventas Inc         43,418         2,127,048         Winnebago Industries         4,808         288,191           Vereit Inc         24,249         916,370         Wix.Com Ltd         5,143         1,284,206           Verisign Inc         11,019         2,380,435         Workday Inc         16,049         3,845,500           Verisk Analytics Inc         22,335         4,632,279         Wp Carey Inc         16,284         1,149,161           Verizon Communicatio         593,132         34,816,848         Ww Grainger Inc         9,446         3,857,084           Vertex Pharmaceutica         23,506         5,550,002         Wynn Resorts Ltd         9,482         1,069,570           Vertiv         34,741         648,614         Xcel Energy Inc         61,519         4,099,010           Vi Corp         35,082         2,994,249         Xilinx Inc         25,943         3,673,787           Viacomebs Inc         97,369         3,626,995         Xpo Logistics Inc         10,576         1,260,658	Vail Resorts Inc	4,142	1,155,411	Whirlpool Corp	9,645	1,740,730
Veeva Systems Inc         18,503         5,037,442         Security         Unit         Fair Value           Ventas Inc         43,418         2,127,048         Winnebago Industries         4,808         2,88,191           Vereit Inc         24,249         916,370         Wix.Com Ltd         5,143         1,284,206           Verisign Inc         11,019         2,380,435         Workday Inc         16,049         3,845,000           Verisk Analytics Inc         22,335         4,632,279         Wp Carey Inc         16,284         1,149,161           Verizon Communicatio         593,132         34,816,848         Ww Grainger Inc         9,446         3,857,084           Vertex Pharmaceutica         23,506         5,550,002         Wynn Resorts Ltd         9,482         1,069,570           Vertiv         34,741         648,614         Xcel Energy Inc         61,519         4,099,010           Vf Corp         35,082         2,994,249         Xilinx Inc         25,943         3,673,787           Viactris Inc         97,369         3,626,995         Xpo Logistics Inc         10,576         1,260,658           Viatris Inc         243,583         4,562,310         Xylem Inc/Ny         18,507         3,819,278           Visit Inc </td <td>Valero Energy Corp</td> <td>42,871</td> <td>2,423,926</td> <td>Williams Cos Inc</td> <td>127,697</td> <td>2,559,048</td>	Valero Energy Corp	42,871	2,423,926	Williams Cos Inc	127,697	2,559,048
Ventas Inc         43,418         2,127,048         Winnebago Industries         4,808         288,191           Vereit Inc         24,249         916,370         Wix.Com Ltd         5,143         1,284,206           Verisign Inc         11,019         2,380,435         Workday Inc         16,049         3,845,500           Verisk Analytics Inc         22,335         4,632,279         Wp Carey Inc         16,284         1,149,161           Verizon Communicatio         593,132         34,816,848         Ww Grainger Inc         9,446         3,857,084           Vertex Pharmaceutica         23,506         5,550,002         Wynn Resorts Ltd         9,482         1,069,570           Vertiv         34,741         648,614         Xcel Energy Inc         61,519         4,099,010           Vf Corp         35,082         2,994,249         Xilinx Inc         25,943         3,673,787           Viacomebs Inc         97,369         3,626,995         Xpc Logistics Inc         10,576         1,260,658           Viatris Inc         243,583         4,562,310         Xylem Inc/Ny         18,507         1,882,531           Vici Properties Inc         56,916         1,451,358         Yeti Holdings Inc         8,311         569,053           Vi	Varian Medical Syste	9,265	1,621,375	Willis Towers Watson	13,492	2,839,796
Vereit Inc         24,249         916,370         Wix.Com Ltd         5,143         1,284,206           Verisign Inc         11,019         2,380,435         Workday Inc         16,049         3,845,500           Verisk Analytics Inc         22,335         4,632,279         Wp Carey Inc         16,284         1,149,161           Verizon Communicatio         593,132         34,816,848         Ww Grainger Inc         9,446         3,857,084           Vertex Pharmaceutica         23,506         5,550,002         Wynn Resorts Ltd         9,482         1,069,570           Vertiv         34,741         648,614         Xcel Energy Inc         61,519         4,099,010           Vi Corp         35,082         2,994,249         Xilinx Inc         25,943         3,673,787           Viacomebs Inc         97,369         3,626,995         Xpo Logistics Inc         10,576         1,260,658           Viatris Inc         243,583         4,562,310         Xylem Inc/Ny         18,507         1,882,531           Vici Properties Inc         56,916         1,451,358         Yeti Holdings Inc         8,311         569,053           Visa Inc         238,977         52,223,644         Yum Brands Inc         35,191         3,819,278           Vistr	Veeva Systems Inc	18,503	5,037,442	Security	Unit	Fair Value
Verisign Ine         11,019         2,380,435         Workday Inc         16,049         3,845,500           Verisk Analytics Inc         22,335         4,632,279         Wp Carey Inc         16,284         1,149,161           Verizon Communicatio         593,132         34,816,848         Ww Grainger Inc         9,446         3,857,082           Vertex Pharmaceutica         23,506         5,550,002         Wynn Resorts Ltd         9,482         1,069,570           Vertiv         34,741         648,614         Xcel Energy Inc         61,519         4,099,010           Vf Corp         35,082         2,994,249         Xillinx Inc         25,943         3,673,787           Viacomebs Inc         97,369         3,626,995         Xpo Logistics Inc         10,576         1,260,658           Viatris Inc         243,583         4,562,310         Xylem Inc/Ny         18,507         1,882,531           Vici Properties Inc         56,916         1,451,358         Yeti Holdings Inc         8,311         569,053           Visa Inc         238,977         52,223,644         Yum Brands Inc         35,191         3,819,278           Vistra Corp         49,385         970,909         Zebra Technologies         8,402         3,223,930	Ventas Inc	43,418	2,127,048	Winnebago Industries	4,808	288,191
Verisk Analytics Inc         22,335         4,632,279         Wp Carey Inc         16,284         1,149,161           Verizon Communicatio         593,132         34,816,848         Ww Grainger Inc         9,446         3,857,084           Vertex Pharmaceutica         23,506         5,550,002         Wynn Resorts Ltd         9,482         1,069,570           Vertiv         34,741         648,614         Xcel Energy Inc         61,519         4,099,010           Vf Corp         35,082         2,994,249         Xilinx Inc         25,943         3,673,787           Viacomcbs Inc         97,369         3,626,995         Xpo Logistics Inc         10,576         1,260,658           Viatris Inc         243,583         4,562,310         Xylem Inc/Ny         18,507         1,882,531           Vici Properties Inc         56,916         1,451,358         Yeti Holdings Inc         35,191         3,819,278           Visa Inc         238,977         52,223,644         Yum Brands Inc         35,191         3,819,278           Vistra Corp         49,385         970,909         Zebra Technologies         8,402         3,223,930           Vmware Inc         9,578         1,343,123         Zendesk Inc         10,362         1,486,013           <	Vereit Inc	24,249	916,370	Wix.Com Ltd	5,143	1,284,206
Verizon Communicatio         593,132         34,816,848         Ww Grainger Inc         9,446         3,857,084           Vertex Pharmaceutica         23,506         5,550,002         Wynn Resorts Ltd         9,482         1,069,570           Vertiv         34,741         648,614         Xcel Energy Inc         61,519         4,099,010           Vf Corp         35,082         2,994,249         Xillinx Inc         25,943         3,673,787           Viacomebs Inc         97,369         3,626,995         Xpo Logistics Inc         10,576         1,260,658           Viatris Inc         243,583         4,562,310         Xylem Inc/Ny         18,507         1,882,531           Vici Properties Inc         56,916         1,451,358         Yeti Holdings Inc         8,311         569,053           Visa Inc         238,977         52,223,644         Yum Brands Inc         35,191         3,819,278           Vistra Corp         49,385         970,909         Zebra Technologies         8,402         3,223,930           Vmware Inc         9,578         1,343,123         Zendesk Inc         10,362         1,486,013           Vocara Communication         5,454         226,505         Zillow Group Inc         18,654         2,873,275 <t< td=""><td>Verisign Inc</td><td>11,019</td><td>2,380,435</td><td>Workday Inc</td><td>16,049</td><td>3,845,500</td></t<>	Verisign Inc	11,019	2,380,435	Workday Inc	16,049	3,845,500
Vertex Pharmaceutica         23,506         5,550,002         Wynn Resorts Ltd         9,482         1,069,570           Vertiv         34,741         648,614         Xcel Energy Inc         61,519         4,099,010           Vf Corp         35,082         2,994,249         Xilinx Inc         25,943         3,673,787           Viacomebs Ine         97,369         3,626,995         Xpo Logistics Inc         10,576         1,260,658           Viatris Inc         243,583         4,562,310         Xylem Inc/Ny         18,507         1,882,531           Vici Properties Inc         56,916         1,451,358         Yeti Holdings Inc         8,311         569,053           Visa Inc         238,977         52,223,644         Yum Brands Inc         35,191         3,819,278           Vistra Corp         49,385         970,909         Zebra Technologies         8,402         3,223,930           Vmware Inc         9,578         1,343,123         Zendesk Inc         10,362         1,486,013           Vocera Communication         5,454         226,505         Zillow Group Inc         18,627         2,442,897           Vornado Realty Trst         19,128         713,857         Zoetis Inc         49,966         8,263,376           Vulcan M	Verisk Analytics Inc	22,335	4,632,279	Wp Carey Inc	16,284	1,149,161
Vertiv         34,741         648,614         Xcel Energy Inc         61,519         4,099,010           Vf Corp         35,082         2,994,249         Xilinx Inc         25,943         3,673,787           Viacomcbs Inc         97,369         3,626,995         Xpo Logistics Inc         10,576         1,260,658           Viatris Inc         243,583         4,562,310         Xylem Inc/Ny         18,507         1,882,531           Vici Properties Inc         56,916         1,451,358         Yeti Holdings Inc         8,311         569,053           Visa Inc         238,977         52,223,644         Yum Brands Inc         35,191         3,819,278           Vistra Corp         49,385         970,909         Zebra Technologies         8,402         3,223,930           Vmware Inc         9,578         1,343,123         Zendesk Inc         10,362         1,486,013           Vocera Communication         5,454         226,505         Zillow Group Inc         18,627         2,442,897           Vornado Realty Trst         19,128         713,857         Zoetis Inc         49,966         8,263,376           Voya Financial Inc         15,356         903,086         Zoom Video Communication         15,736         5,305,550           Vul	Verizon Communicatio	593,132	34,816,848	Ww Grainger Inc	9,446	3,857,084
Vf Corp         35,082         2,994,249         Xilinx Inc         25,943         3,673,787           Viacomcbs Inc         97,369         3,626,995         Xpo Logistics Inc         10,576         1,260,658           Viatris Inc         243,583         4,562,310         Xylem Inc/Ny         18,507         1,882,531           Vici Properties Inc         56,916         1,451,358         Yeti Holdings Inc         8,311         569,053           Visa Inc         238,977         52,223,644         Yum Brands Inc         35,191         3,819,278           Vistra Corp         49,385         970,909         Zebra Technologies         8,402         3,223,930           Vmware Inc         9,578         1,343,123         Zendesk Inc         10,362         1,486,013           Vocera Communication         5,454         226,505         Zillow Group Inc         18,627         2,442,897           Vontier Corp         23,068         770,241         Zimmer Biomet Holding         18,654         2,873,275           Voya Financial Inc         15,356         903,086         Zoom Video Communication         15,736         5,305,550           Vulcan Materials         13,571         2,011,901         Zscaler Inc         9,559         1,909,027	Vertex Pharmaceutica	23,506	5,550,002	Wynn Resorts Ltd	9,482	1,069,570
Viacomcbs Inc         97,369         3,626,995         Xpo Logistics Inc         10,576         1,260,658           Viatris Inc         243,583         4,562,310         Xylem Inc/Ny         18,507         1,882,531           Vici Properties Inc         56,916         1,451,358         Yeti Holdings Inc         8,311         569,053           Visa Inc         238,977         52,223,644         Yum Brands Inc         35,191         3,819,278           Vistra Corp         49,385         970,909         Zebra Technologies         8,402         3,223,930           Vmware Inc         9,578         1,343,123         Zendesk Inc         10,362         1,486,013           Vocera Communication         5,454         226,505         Zillow Group Inc         18,627         2,442,897           Vornado Realty Trst         19,128         713,857         Zoetis Inc         49,966         8,263,376           Voya Financial Inc         15,356         903,086         Zoom Video Communication         15,736         5,305,550           Vulcan Materials         13,571         2,011,901         Zscaler Inc         9,559         1,909,027           Security         Unit         Fair Value         4,159,886,732           W R Berkley Corp         16,952 <td>Vertiv</td> <td>34,741</td> <td>648,614</td> <td>Xcel Energy Inc</td> <td>61,519</td> <td>4,099,010</td>	Vertiv	34,741	648,614	Xcel Energy Inc	61,519	4,099,010
Viatris Inc         243,583         4,562,310         Xylem Inc/Ny         18,507         1,882,531           Vici Properties Inc         56,916         1,451,358         Yeti Holdings Inc         8,311         569,053           Visa Inc         238,977         52,223,644         Yum Brands Inc         35,191         3,819,278           Vistra Corp         49,385         970,909         Zebra Technologies         8,402         3,223,930           Vmware Inc         9,578         1,343,123         Zendesk Inc         10,362         1,486,013           Vocera Communication         5,454         226,505         Zillow Group Inc         18,627         2,442,897           Vontier Corp         23,068         770,241         Zimmer Biomet Holding         18,654         2,873,275           Vornado Realty Trst         19,128         713,857         Zoetis Inc         49,966         8,263,376           Voya Financial Inc         15,356         903,086         Zoom Video Communication         15,736         5,305,550           Vulcan Materials         13,571         2,011,901         Zscaler Inc         9,559         1,909,027           Zynga Inc         124,476         1,227,332           Security         Unit         Fair Value	Vf Corp	35,082	2,994,249	Xilinx Inc	25,943	3,673,787
Vici Properties Inc         56,916         1,451,358         Yeti Holdings Inc         8,311         569,053           Visa Inc         238,977         52,223,644         Yum Brands Inc         35,191         3,819,278           Vistra Corp         49,385         970,909         Zebra Technologies         8,402         3,223,930           Vmware Inc         9,578         1,343,123         Zendesk Inc         10,362         1,486,013           Vocera Communication         5,454         226,505         Zillow Group Inc         18,627         2,442,897           Vontier Corp         23,068         770,241         Zimmer Biomet Holding         18,654         2,873,275           Vornado Realty Trst         19,128         713,857         Zoetis Inc         49,966         8,263,376           Voya Financial Inc         15,356         903,086         Zoom Video Communication         15,736         5,305,550           Vulcan Materials         13,571         2,011,901         Zscaler Inc         9,559         1,909,027           Zynga Inc         124,476         1,227,332           Security         Unit         Fair Value         4,159,886,732           W R Berkley Corp         16,952         1,125,613           Walgreens	Viacomebs Inc	97,369	3,626,995	Xpo Logistics Inc	10,576	1,260,658
Visa Inc         238,977         52,223,644         Yum Brands Inc         35,191         3,819,278           Vistra Corp         49,385         970,909         Zebra Technologies         8,402         3,223,930           Vmware Inc         9,578         1,343,123         Zendesk Inc         10,362         1,486,013           Vocera Communication         5,454         226,505         Zillow Group Inc         18,627         2,442,897           Vontier Corp         23,068         770,241         Zimmer Biomet Holding         18,654         2,873,275           Vornado Realty Trst         19,128         713,857         Zoetis Inc         49,966         8,263,376           Voya Financial Inc         15,356         903,086         Zoom Video Communication         15,736         5,305,550           Vulcan Materials         13,571         2,011,901         Zscaler Inc         9,559         1,909,027           Zynga Inc         124,476         1,227,332           Security         Unit         Fair Value         4,159,886,732           W R Berkley Corp         16,952         1,125,613           Walgreens Boots Alli         77,422         3,085,267         Total         6,432,697,072	Viatris Inc	243,583	4,562,310	Xylem Inc/Ny	18,507	1,882,531
Vistra Corp         49,385         970,909         Zebra Technologies         8,402         3,223,930           Vmware Inc         9,578         1,343,123         Zendesk Inc         10,362         1,486,013           Vocera Communication         5,454         226,505         Zillow Group Inc         18,627         2,442,897           Vontier Corp         23,068         770,241         Zimmer Biomet Holding         18,654         2,873,275           Vornado Realty Trst         19,128         713,857         Zoetis Inc         49,966         8,263,376           Voya Financial Inc         15,356         903,086         Zoom Video Communication         15,736         5,305,550           Vulcan Materials         13,571         2,011,901         Zscaler Inc         9,559         1,909,027           Zynga Inc         124,476         1,227,332           Security         Unit         Fair Value         4,159,886,732           W R Berkley Corp         16,952         1,125,613           Walgreens Boots Alli         77,422         3,085,267         Total         6,432,697,072	Vici Properties Inc	56,916	1,451,358	Yeti Holdings Inc	8,311	569,053
Vmware Inc         9,578         1,343,123         Zendesk Inc         10,362         1,486,013           Vocera Communication         5,454         226,505         Zillow Group Inc         18,627         2,442,897           Vontier Corp         23,068         770,241         Zimmer Biomet Holding         18,654         2,873,275           Vornado Realty Trst         19,128         713,857         Zoetis Inc         49,966         8,263,376           Voya Financial Inc         15,356         903,086         Zoom Video Communication         15,736         5,305,550           Vulcan Materials         13,571         2,011,901         Zscaler Inc         9,559         1,909,027           Zynga Inc         124,476         1,227,332           Security         Unit         Fair Value         4,159,886,732           W R Berkley Corp         16,952         1,125,613           Walgreens Boots Alli         77,422         3,085,267         Total         6,432,697,072	Visa Inc	238,977	52,223,644	Yum Brands Inc	35,191	3,819,278
Vocera Communication         5,454         226,505         Zillow Group Inc         18,627         2,442,897           Vontier Corp         23,068         770,241         Zimmer Biomet Holding         18,654         2,873,275           Vornado Realty Trst         19,128         713,857         Zoetis Inc         49,966         8,263,376           Voya Financial Inc         15,356         903,086         Zoom Video Communication         15,736         5,305,550           Vulcan Materials         13,571         2,011,901         Zscaler Inc         9,559         1,909,027           Zynga Inc         124,476         1,227,332           Security         Unit         Fair Value         4,159,886,732           W R Berkley Corp         16,952         1,125,613           Walgreens Boots Alli         77,422         3,085,267         Total         6,432,697,072	Vistra Corp	49,385	970,909	Zebra Technologies	8,402	3,223,930
Vontier Corp         23,068         770,241         Zimmer Biomet Holding         18,654         2,873,275           Vornado Realty Trst         19,128         713,857         Zoetis Inc         49,966         8,263,376           Voya Financial Inc         15,356         903,086         Zoom Video Communication         15,736         5,305,550           Vulcan Materials         13,571         2,011,901         Zscaler Inc         9,559         1,909,027           Zynga Inc         124,476         1,227,332           Security         Unit         Fair Value         4,159,886,732           W R Berkley Corp         16,952         1,125,613           Walgreens Boots Alli         77,422         3,085,267         Total         6,432,697,072	Vmware Inc	9,578	1,343,123	Zendesk Inc	10,362	1,486,013
Vornado Realty Trst         19,128         713,857         Zoetis Inc         49,966         8,263,376           Voya Financial Inc         15,356         903,086         Zoom Video Communication         15,736         5,305,550           Vulcan Materials         13,571         2,011,901         Zscaler Inc         9,559         1,909,027           Zynga Inc         124,476         1,227,332           Security         Unit         Fair Value         4,159,886,732           W R Berkley Corp         16,952         1,125,613           Walgreens Boots Alli         77,422         3,085,267         Total         6,432,697,072	Vocera Communication	5,454	226,505	Zillow Group Inc	18,627	2,442,897
Voya Financial Inc         15,356         903,086         Zoom Video Communication         15,736         5,305,550           Vulcan Materials         13,571         2,011,901         Zscaler Inc         9,559         1,909,027           Zynga Inc         124,476         1,227,332           Security         Unit         Fair Value         4,159,886,732           W R Berkley Corp         16,952         1,125,613           Walgreens Boots Alli         77,422         3,085,267         Total         6,432,697,072	Vontier Corp	23,068	770,241	Zimmer Biomet Holding	18,654	2,873,275
Vulcan Materials         13,571         2,011,901         Zscaler Inc         9,559         1,909,027           Zynga Inc         124,476         1,227,332           Security         Unit         Fair Value         4,159,886,732           W R Berkley Corp         16,952         1,125,613           Walgreens Boots Alli         77,422         3,085,267         Total         6,432,697,072	Vornado Realty Trst	19,128	713,857	Zoetis Inc	49,966	8,263,376
Security         Unit         Fair Value         4,159,886,732           W R Berkley Corp         16,952         1,125,613           Walgreens Boots Alli         77,422         3,085,267         Total         6,432,697,072	Voya Financial Inc	15,356	903,086	Zoom Video Communication	15,736	5,305,550
Security         Unit         Fair Value         4,159,886,732           W R Berkley Corp         16,952         1,125,613           Walgreens Boots Alli         77,422         3,085,267         Total         6,432,697,072	Vulcan Materials	13,571	2,011,901	Zscaler Inc	9,559	1,909,027
W R Berkley Corp 16,952 1,125,613 Walgreens Boots Alli 77,422 3,085,267 <b>Total</b> 6,432,697,072				Zynga Inc	124,476	1,227,332
W R Berkley Corp 16,952 1,125,613 Walgreens Boots Alli 77,422 3,085,267 <b>Total</b> 6,432,697,072	Security	Unit	Fair Value			4,159,886,732
	W R Berkley Corp	16,952	1,125,613			
Walmart Inc 167,483 24,130,951	Walgreens Boots Alli	77,422	3,085,267	Total		6,432,697,072
	Walmart Inc	167,483	24,130,951			

### 24. Schedule of financial assets valued through profit or loss (continue)

#### (c) Derivatives

Security	Unit holding	Fair Value	Security	Unit holding	Fair Value
Money market securities					
European money market	2,500,000	3,066,927	Sell Aud:Buy Usd 11/01/2021	(228,100,000)	(176,033,026)
securities			Sell Cad:Buy Usd 11/01/2021	(208,100,000)	(163,351,342)
		3,066,927	Sell Chf:Buy Usd 11/01/2021	(83,500,000)	(94,490,849)
			Sell Dkk:Buy Usd 11/01/2021	(739,900,000)	(121,649,742)
Buy Usd:Sell Aud 11/01/2021	168,417,863	168,417,863	Sell Eur:Buy Usd 11/01/2021	(405,000,000)	(495,655,300)
Buy Usd:Sell Cad 11/01/2021	162,397,280	162,397,280	Sell Gbp:Buy Usd 11/01/2021	(122,900,000)	(168,012,989)
Buy Usd:Sell Chf 11/01/2021	93,564,499	93,564,499	Sell Hkd:Buy Usd 11/01/2021	(57,000,000)	(7,351,472)
Buy Usd:Sell Dkk 11/01/2021	120,324,442	120,324,442	•	, , , ,	
Buy Usd:Sell Eur 11/01/2021	490,162,590	490,162,590	Sell Jpy:Buy Usd 12/01/2021	(16,118,000,000)	(156,134,705)
Buy Usd:Sell Gbp 11/01/2021	163,133,712	163,133,712	Sell Nok:Buy Usd 11/01/2021	(491,000,000)	(57,346,470)
Buy Usd:Sell Hkd 11/01/2021	7,354,476	7,354,476	Sell Nzd:Buy Usd 11/01/2021	(78,000,000)	(56,163,798)
Buy Usd:Sell Jpy 12/01/2021	154,750,726	154,750,726	Sell Sek:Buy Usd 11/01/2021	(658,000,000)	(80,132,540)
Buy Usd:Sell Nok 11/01/2021	55,381,553	55,381,553	Sell Sgd:Buy Usd 11/01/2021	(145,600,000)	(110,165,493)
Buy Usd:Sell Nzd 11/01/2021	54,724,956	54,724,956	Sell Gbp:Buy Usd 13/01/2021	(8,448,800)	(11,550,276)
Buy Usd:Sell Sek 11/01/2021	77,554,001	77,554,001	Sell Gbp:Buy Usd 13/01/2021	(3,410,100)	(4,661,915)
Buy Usd:Sell Sgd 11/01/2021	108,824,525	108,824,525	Sen Gop. Buy Osa 15/01/2021	(5,410,100)	(1,702,699,917)
Buy Usd:Sell Gbp 13/01/2021	11,268,900	11,268,901			(1,702,099,917)
Buy Usd:Sell Gbp 13/01/2021	4,584,761	4,584,762	Total		(30,255,631)

1,672,444,286

Annex III. Statements on accounting policies of	of the Petroleum Fund for the fiscal year 2020



## República Democrática de Timor-Leste Ministério das Finanças



Direção Geral do Tesouro

REF NO: **(64/**VIII/DGT-MF/3/2022

31 March 2022

#### Treasury Statement on Accounting Policies of the Petroleum Fund for the Fiscal Year 2020

This statement on the Accounting Policies of the Petroleum Fund is made in accordance with the provisions of Article 24.1 (d) of the Petroleum Fund Law, No. 12/2011. It may be retained for Petroleum Fund records.

In accordance with Article 21 of the Petroleum Fund Law, the Financial Statements of the Petroleum Fund for the Fiscal Year ended 31st December, 2020 have been prepared in accordance with International Financial Reporting Standards (IFRS) which comprise standards and interpretations approved by the International Accounting Standards and Standing Interpretations Committee interpretations approved by the International Accounting Standards Committee (IASC) that remained in effect at the balance sheet date of the Petroleum Fund.

During the 2020 Fiscal Year, the Petroleum Fund has adopted all new and revised IFRS that were relevant. Adoption of these new and revised IFRS did not have a material impact.

Previously adopted accounting standards have continued to be applied.

Regina de Jesus de Sousa

Director General of Treasury

Annex IV. Comparison of income derived from the investment of the Petroleum Fund assets with the previous three fiscal years

# **Comparison of Income Derived from the Investment of the Petroleum Fund Assets with the Previous Three Fiscal Years**

(As per Article 24.1 (e) of the Petroleum Fund Law No. 9/2005, of  $3^{rd}$  of August as amended by the Law No. 12/2011, of  $28^{th}$  of September)

Please refer to the Audited Financial Statements for details.

Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year
2020	2019	2018	2017
US\$ 1,773,297,623	US\$ 2,100,923,843	US\$ (459,920,721)	

 ${\bf Annex~V.~Comparison~of~nominal~income~on~the~investment~of~the~Petroleum~Fund~assets~with~the~real~returns~after~adjusting~for~inflation}$ 

# Comparison of Nominal Income on the Investment of the Petroleum Fund Assets with the Real returns After Adjusting for Inflation

(As per Article 24.1 (f) of the Petroleum Fund Law No. 9/2005, of  $3^{rd}$  of August as amended by the Law No. 12/2011, of  $28^{th}$  of September)

Petroleum Fund's nominal and real return:

Return	2020	2019
Nominal return	10.17%	13.25%
Inflation <sup>22</sup>	1.36%	2.29%
Real return	8.69%	10.72%

The Petroleum Fund's nominal return for 2020 was 10.17%. The real return of the Fund for the year was 8.69%, after adjusting for the US inflation of 1.36%.

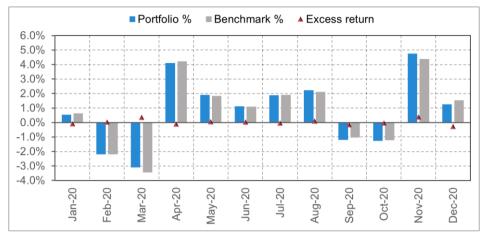
Annex VI. Comparison of nominal income on the investment of the Petroleum Fund assets with the benchmark index performance

# Comparison of Nominal Income on the Investment of the Petroleum Fund Assets with the Benchmark Performance Index

(As per Article 24.1 (g) of the Petroleum Fund Law No. 9/2005, of  $3^{rd}$  of August as amended by the Law No. 12/2011, of  $28^{th}$  of September)

# Petroleum Fund Monthly Returns

January - December 2020



#### Petroleum Fund Monthly Return

January - December 2020

Period	Portfolio	Benchmark	Excess return
January	0.55%	0.63%	-0.08%
February	-2.18%	-2.20%	0.02%
March	-3.10%	-3.46%	0.35%
April	4.10%	4.21%	-0.11%
May	1.90%	1.84%	0.06%
June	1.12%	1.09%	0.03%
July	1.88%	1.91%	-0.04%
August	2.22%	2.13%	0.10%
September	-1.20%	-1.04%	-0.15%
October	-1.27%	-1.22%	-0.04%
November	4.77%	4.39%	0.38%
December	1.25%	1.53%	-0.28%
Fiscal Year 2020	10.17%	9.91%	0.27%

Annex VII. Comparison of the Estimated Sustainable Income for the fiscal year 2020 with the sum of transfers from the Petroleum Fund for the same year

# Comparison of the Estimated Sustainable Income for the Fiscal Year 2020 with the Sum of Transfers from the Petroleum Fund for the Same Year

(As per Article 24.1 (h) of the Petroleum Fund Law No. 9/2005, of  $3^{rd}$  of August as amended by the Law No. 12/2011, of  $28^{th}$  of September)

The total withdrawals from the Petroleum Fund for the Financial Year 2020 was US\$886.3 million which was US\$341.9 million higher than the Estimated Sustainable Income (ESI) amount of US\$544.4 million projected for the year.

Please refer to Statement of Changes in Capital and Notes to the Financial Statements for further details.

# Annex VIII. Treasury statement on borrowings



## República Democrática de Timor-Leste Ministério das Finanças



Direção Geral do Tesouro

REF NO: 16 / DGT-MF/3/2022

31 March 2022

#### Treasury Statement on Borrowings by Government of Timor-Leste for Fiscal Year 2020

This statement is made in accordance with the requirement under Article 24.1 (i) of the Petroleum Fund Law No. 12/2011 to declare if there have been any borrowings by the Government of Timor-Leste in which the Petroleum Fund is being used as collateral as detailed in Article 20.2.

While sovereign loans negotiated and entered into from time to time by Timor-Leste with international financial institutions such as World Bank, Asian Development Bank, and Japan International Co-operation Agency, engage all of Timor-Leste's assets for payment of interest and re-payment of principal, such sovereign loans do not have any specific collateral requirements that encumber the Petroleum Fund, under their terms and conditions.

Two new loans were signed with the World Bank during the fiscal year ended 31st December 2020 for around US\$42 million. Total value of all loans committed or signed up to 31st December 2020 at exchange rates ruling on that date amounted to approximately US\$500 million. This also includes Special Drawing Rights (SDRs) and Yen denominated liabilities which can vary according to ruling exchange rates.

Regina de Jesus de Sousa

Director General of Treasury

Annex IX. List of persons holding positions relevant for the operations and performance of the Petroleum Fund

## List of Persons Holding Relevant positions for the Operations and Performance of the Petroleum Fund

(As per Article 24.1 (j) of the Petroleum Fund Law No. 9/2005, of  $3^{rd}$  of August as amended by the Law No. 12/2011, of  $28^{th}$  of September)

The list of persons holding relevant positions for the operation and performance of the Petroleum Fund is given below:

#### (i) Minister of Finance

Mr. Rui Augusto Gomes

Mr. Fernando Hanjam (24 June 2020 – 5 November 2020) Ms. Sara Lobo Brites (Acting Minister, 25 June 2018 - 28 May 2020)

Vice- Minister

Ms. Sara Lobo Brites (Acting Minister, 25 June 2018 - 28 May 2020)

#### (ii) The Director General of Treasury

Ms. Regina de Jesus Sousa (from January 2021)

Mr. Rui Fereira Magno (until 15 January 2021)

#### (iii) The members of the Investment Advisory Board (IAB)

Name	Position
Mr. Olgario de Castro	Chairman of the IAB
Mr. Torres Trovik	Member of the IAB
Mr. Gualdino da Silva	Member of the IAB
Prof. Michael Drew	Member of the IAB
Mr. Venancio Alves Maria	Representative of the Central Bank of Timor-Leste
Mr. Rui Fereira Magno (Alternate Mr. Ernesto da Conceição Silva)	Director General of Treasury

*Note: See page 100 for the details.* 

#### (iv) Operational Manager

• Banco Central de Timor-Leste (BCTL) – from 12 October 2005.

- (v) The External Investment Managers:
  - Bank for International Settlements (BIS) from 3 June 2009.
  - Schroders Investment Management Limited from 8 October 2010.
  - State Street Global Advisors (SSgA) from 14 September 2011 (implementation commenced in January 2012).
  - BlackRock Investment Management Australia Limited from April 2012 (implementation commenced in February 2013).
  - AllianceBernstein from July 2014 until April 2020.
  - Wellington Management from December 2014 until April 2020.
- (vi) Custodian
  - JP Morgan Chase Bank N.A.
- (vii) Independent Auditor
  - Ernst & Young
- (viii) The Governor of the Central Bank

Mr. Abraão Fernandes de Vasconselos

(ix) The Petroleum Fund Consultative Council (PFCC) was formally constituted on the 6<sup>th</sup> of November, 2006. For the Financial Year 2020 members of the PFCC were:

Name	Representation	Position
Mr. Juvinal Dias	Civil Society	President of PFCC
WII. Juviliai Dias		(active from Feb 21, 2020)
Mr. Nuno Eugénio Goulart	National Parliament	Vice President of PFCC
	National Parliament	(active from Oct 16, 2019)
Ms. Izilda Imanuela da Luz Pereira Soares	National Parliament	Secretary of PFCC
Ms. Martinha da Silva de Jesus	Civil Society	Member
Ms. Martinna da Silva de Jesus		(active from Oct 16, 2019)
Mr. Hernani Agostinho Soares	Private Sector	Member
	Private Sector	(active from Oct 16, 2019)
Pe. Julio Crispim X. Belo	Religious Confession	Member

#### Members of the Investment Advisory Board



Mr. Olgario de Castro is the Chairman of the Investment Advisory Board. He joined the Petroleum Fund in May 2008, and has been with the Fund for more than 10 years. He is a Timorese national and chartered accountant and partner in De Castro Sullivan Lai Practice in Darwin, Australia. His areas of expertise include tax, financial and management accounting and auditing.

**Dr. Torres Trovik** is one of the architects in setting up the Petroleum Fund in 2005 and has been a member of IAB since inception. He is a Norwegian national and an investment professional with international experience in financial markets, sovereign wealth funds and pension funds. He is currently a non-executive director at the Government Pension Fund Norway, Chairman of the management board of the Pension Reserve Fund of the Council of Europe and a Senior Advisor at KLP, Oslo. He is also a member of the Advisory Committee for the International Forum of Sovereign Wealth Funds (IFSWF), representing the Timor-Leste Petroleum Fund.

**Mr. Gualdino da Silva** has been with the Petroleum Fund since June 2012. He holds geological engineering qualification from RMIT and is the former President of the National Authority for Petroleum and Minerals (ANPM).

**Prof. Michael Drew** joined the Petroleum Fund in April 2017. He is a Professor of Finance at Griffith University and a consulting financial economist specializing in the areas of investment, governance, and pension plan design. He also serves as a Trustee Director of QSuper and is a member of the Investment Committee.

Mr. Venancio Alves Maria is Executive Director of the Petroleum Fund at the Central Bank and is the Deputy Governor of the Central Bank. He is a Timorese national with more than 15 years' experience in managing the Petroleum Fund's investments. He is a non-voting member representing the Central Bank appointed by the Governor of the Central Bank.

**Mr. Ernesto D.C. Silva** joined the Petroleum Fund in 2017. He is a public servant and Director for Accounting and Financial Regulation at the Ministry of Finance. He is a non-voting member and the appointed alternate to the Director General of Treasury.

Annex X. Statement on total withdrawals versus the approved appropriation amount

### Statement affirming that Total Withdrawals from the Fund did not exceed the Approved Appropriation Amount for the Fiscal Year

(As per Article 7.2 of the Petroleum Fund Law No. 9/2005, of  $3^{rd}$  of August as amended by the Law No. 12/2011, of  $28^{th}$  of September)

In accordance with Article 7 of Law No.9/2005, of the 3<sup>rd</sup> August as amended by the Law No.12/2011, of the 28<sup>th</sup> September, Petroleum Fund Law, the total transfer amount for the Petroleum Fund for a Fiscal year shall not exceed the appropriation amount approved by the Parliament for the Fiscal year.

In accordance with Article 6 of Law No. 10/2020, of the 19<sup>th</sup> October on the General State Budget for 2020, the transfer amount from the Petroleum Fund to the General State Budget for 2020 is not to exceed US\$963.9 million.

The total actual transfer amount from the Petroleum Fund to the Consolidated Fund of Timor-Leste for 2020 was US\$886.3 million.

The total transfer amount from the Petroleum Fund for 2020 was in compliance with Article 7.2 of the Petroleum Fund Law No.9/2005 as amended by Law No.12/2011.

## Annex XI. Article 35 report on the Petroleum Fund receipts from Ernst & Young



Ernst & Young 11 Mounts Bay Road Perth WA 6000 Australia GPO Box M939 Perth WA 6843 Tel: +61 8 9429 2222 Fax: +61 8 9429 2436

ey.com/au

Compilation report to the Ministry of Finance, Democratic Republic of Timor-Leste in respect of the Statement of Petroleum Fund Receipts for the year ended 31 December 2020

We have compiled the accompanying Statement of Petroleum Fund Receipts detailing the payments made to the Petroleum Fund of Timor-Leste ("the Petroleum Fund") for the year ended 31 December 2020 based on information provided to us by the Petroleum Fund's operational manager, Banco Central de Timor-Leste ("the operational manager").

We performed this compilation engagement in accordance with International Standard on Related Services 4410 (Revised) *Compilation Engagements*.

We have applied our expertise in accounting and financial reporting to assist you in the preparation and presentation of the Statement of Petroleum Fund Receipts. We have complied with relevant ethical requirements, including principles of integrity, objectivity, professional competence and due care.

The National Petroleum Authority and the National Directorate of Petroleum Tax Revenue are responsible for monitoring that all payments that should have been made under the Petroleum Fund Law No. 9/2005 dated 3 August 2005, as amended by Law No. 12/2011 dated 28 September 2011 (the "Petroleum Fund Law") have been made for the year ended 31 December 2020. This Statement of Petroleum Fund Receipts and the accuracy and completeness of the information used to compile it are the responsibility of the operational manager.

Since a compilation engagement is not an assurance engagement, we are not required to verify the accuracy or completeness of the information you provided to us to compile the Statement of Petroleum Fund Receipts. Accordingly, we do not express an audit opinion or a review conclusion on the Statement of Petroleum Fund Receipts.

As stated in Note 1, the Statement of Petroleum Fund Receipts is prepared and presented in accordance with the requirements under the Petroleum Fund Law. Accordingly, the Statement of Petroleum Fund Receipts is for use only in connection with that purpose and may not be suitable for any other purpose.

Our compilation report is intended solely for the use by the Ministry of Finance as required under the Petroleum Fund Law. We disclaim all responsibility to any other party for any loss or liability that the other party may suffer or incur arising from or relating to or in any way connected with the contents of our report, the provision of our report to the other party or the reliance upon our report by the other party.

Earst & Young

Ernst & Young Perth 31 March 2022

#### PETROLEUM FUND OF TIMOR-LESTE STATEMENT OF PETROLEUM FUND RECEIPTS FOR THE YEAR ENDED 31 DECEMBER 2020

Article 6.1(a) receipts	\$
Payee:	
Amec Services Ltd	32,889
Babcock Offshore Services	320,231
Brunel Energy Pty Ltd	94,173
Callidus Process Solution Pty Ltd	11,635
Caltech Unip Lda	541,083
Cameron Services Pty Ltd	62,133
Cameron Services Int'l Pty	11,026
Cape Aust Onshore	12,193
Carnarvon Petroleum Ltd	40,820
Carnarvon Petroleum Timor Unip	27,164
Caterpilar of Australia Pty Ltd	7,670
Clough Amec Pty Ltd	1,373,846
Compas Group (Australia) Pty.Ltd.	444,975
Competentia Pty Ltd	86,417
Conoco Philips (EMET) Pty Ltd	4,765,757
Conoco Philips Timor Leste Pty Ltd	318,719
Conoco Phillips (03-12) Pty Ltd	38,064,185
Conoco Phillips (03-13) Pty Ltd	2,291,900
Conoco Phillips (Timor Sea) Pty Ltd	15,322,632
Conocophillips Australia Pty Ltd	4,036,593
Conocophillips JPDA Pty Ltd	11,858,785
Dekra Organisational Reliability Ltd	779
Eni JPDA 03-13 Ltd Branch	7,477,397
Eni JPDA 06-105 Pty Ltd	461,075
Eni JPDA 11-106 BV BRANCH	157,290
Eni Timor Lesta Spa Branch	29,803
Haliburton Australia Pty Ltd	116,663
Hertel Modern Pty Ltd	108,768
Inpex Sahul Ltd	14,686,529
Inpex Timor Sea Ltd	28,216
Japan Energy EP JPDA Pty Ltd	15,263
Konekto/Babcock Unip Lda	142,526
KT Maritime Services BU	262,867
Maersk Drilling Intl A/S	5,295
MMA Offshore Vessel Operation Pty	212,921
Neptune Diving Service Pty Ltd	5,468
Neptune Marine Services Ltd	23,500
Oceaneering Aust Pty Ltd	412,856
Repsol Oil & Gas Pty Ltd	90
Repsol Oil Gas Autralasia Pty.Ltd	45
Santos (JPDA 91-12) Pty Ltd	21,194,227
Santos (JPDA 91-21) Lda	28,411
Santos Lda	7,759,434
Schlumber Australia Pty Ltd	48,654
Seafox Asia Pacific Pte Ltd	3,905
SGS Australia Ltd	9,582
SGS Australia Pty.Limited	89,675

# PETROLEUM FUND OF TIMOR-LESTE STATEMENT OF PETROLEUM FUND RECEIPTS continued FOR THE YEAR ENDED 31 DECEMBER 2020

Article 6.1(a) receipts (continued)	\$
Payee:	
SGS Singapore Pty Limited	58,401
Sodexo Timor Unip Lda	518
Solar Tubirnes Int. Co	14,858
Spectrum Geo Aust Pty Ltd	60,765
Sundagas Pty Ltd	140,002
Talisman Australasia Pty.Ltd.	135
Tax Payers Receipts	411
Timor Gap Onshore Block Unip Lda	47,707
Timor Gap Chuditch Unipessoal Lda	6,816
Timor Gap E P	4,271
Timor Gap Offshore Block Unip	121,225
Timor Gap PSC 11-106 Unip.Lda	122,185
Timor Resources Pty Ltd	51,759
Tokyo Timor Sea Resources Pty Ltd	11,714,253
Watherford Australia Pty Ltd	129,151
Wood Australia Pty Ltd	1,257
Wood Group PSN Aust Pty Ltd	3,210
Woodside Energy Pty Ltd	26,635
Total Article 6.1(a) receipts per the Petroleum Fund and National	
Directorate of Petroleum and Mineral Revenue (NDPMR) for the year	145,509,622

# PETROLEUM FUND OF TIMOR-LESTE STATEMENT OF PETROLEUM FUND RECEIPTS continued FOR THE YEAR ENDED 31 DECEMBER 2020

Article 6.1(b) receipts	\$
Article 6.1(b) receipts per Autoridade Nacional do Petroleo e Minerals (ANPM)	136,353,980
Less: Amount paid to Petroleum Fund in January 2021	(1,325,001)
Add: Amount paid to Petroleum Fund in January 2020	29,547,294
Total Article 6.1(b) receipts per the Petroleum Fund for the year	164,576,273
Article 6.1 (e) receipts	
Dept Foreign Affairs & Trade	11,222,400
Carnarvon Petroleum Unip Lda	40,290
Conoco Phillips (03-12) Pty Ltd	1,829,100
Conoco Philips Timor Leste Pty Ltd	320,000
ENI JPDA 06-105 Pty Ltd	322,500
ENI Timor Lesta SPA Branch	394,000
Santos NA (91-12) Pty Ltd	1,829,085
SundaGas Banda Unip Lda	107,145
Total Article 6.1 (e) receipts per the Petroleum Fund for the year	16,064,520
Summary of Receipts for the year ended 31 December 2020 per the Petroleum Fund	
Article 6.1(a) receipts	145,509,622
Article 6.1(b) receipts	164,576,273
Article 6.1(e) receipts	16,064,520
Total Article 6.1 receipts per the Petroleum Fund for the year	326,150,415

## PETROLEUM FUND OF TIMOR-LESTE STATEMENT OF PETROLEUM FUND RECEIPTS continued FOR THE YEAR ENDED 31 DECEMBER 2020

#### Notes to the Statement of Petroleum Fund Receipts

The Statement of Petroleum Fund Receipts details the payments made to the Petroleum Fund of Timor-Leste ("the Petroleum Fund") for the year ended 31 December 2020 as required under article 35 of the Petroleum Fund Law No. 9/2005 dated 3 August 2005, as amended by Law No. 12/2011 dated 28 September 2011 ("the Law").

The National Petroleum Authority and the National Directorate of Petroleum Tax Revenue are responsible for monitoring that all payments that should have been made under the Law have been made for the year ended 31 December 2020.

Banco Central de Timor-Leste, the operational manager of the Petroleum Fund of Timor-Leste is responsible for the accuracy and completeness of the information contained in the Statement of Petroleum Fund Receipts.

The petroleum receipts are received in US\$ and the Statement of Petroleum Fund Receipts is presented in US\$.

#### **Basis of Preparation**

The petroleum receipts are recorded in the Statement of Petroleum Fund Receipts on a receipt basis. The Statement of Petroleum Fund Receipts include the following types of receipts for the financial year ended 31 December 2020:

- Article 6.1 (a) receipts the gross revenue, including Tax Revenue, of Timor-Leste from any Petroleum Operations, including prospecting or exploration for, and development, exploitation, transportation, sale or export of petroleum, and other activities relating thereto
- Article 6.1 (b) receipts any amount received by Timor-Leste from the Designated Authority pursuant to the Treaty
- Article 6.1 (d) any amount received from direct or indirect participation of Timor-Leste in Petroleum Operations. There is no receipt under this category for the current financial year; and
- Article 6.1 (e) any amount received by Timor-Leste relating directly to petroleum resources not covered in paragraphs above.

## Annex XII. Advice provided by the Investment Advisory Board

## Strictly confidential in accordance with Article 32.2(d) of the Petroleum Fund Law until the date as the recommendations in this advice have been fully implemented

#### Investment Advisory Board

Date: 21 February 2020

To

#### H.E. Sara Lobo Brites

Interim Minister and Vice Minister of Finance Democratic Republic of Timor-Leste

#### Subject: Currency Hedging in the Bond Portfolio

Dear Interim Minister and Vice Minister,

The Investment Advisory Board is writing in relation to its letter on 30 May 2019, which recommended hedging the non-US sovereign bond mandate as well as other changes to the bond portfolio. Your Excellency in July 2019 adopted the Board's advice and requested the BCTL to proceed with implementation.

The Investment Advisory Board was briefed on the plan to implement currency hedging by the representatives from the BCTL and the Ministry of Finance when the Board met on 5 February 2020. The Board met again on 13 February to determine its advice.

Cash collateral is required to implement hedging through derivatives. In this mandate, 10 per cent of the market value of the bonds will be held as collateral in a US Dollar account. Alternative structures were discussed during the IAB's meetings. The Board recommends that the cash collateral required for hedging bonds be contained within the 10 per cent allocation for the hedged bond mandate. This approach is favored as it follows standard practice for a hedged mandate. It also ensures that the allocations to the investment mandates in Annex 1 of the Operational Management Agreement remain very clear, rather than financing one mandate from part of another mandate.

This recommendation completes the Investment Advisory Board's advice of May 2019. However, an adjustment to the benchmark is recommended to more fairly represent the fund manager's relative performance given that the collateral required largely reflects Timor-Leste's circumstances. The Board recommends adopting a composite benchmark that incorporates the 10 per cent of the mandate that is required to be held as cash collateral.

The Board's advice in May 2019 proposed the mandate's parameters to be included in Annex 1. As noted, the Benchmark Index will be changed. In addition, the IAB adopted a proposal by the BCTL in September 2019 to add US Dollar instruments to Eligible Instruments. Investing the cash collateral was discussed this month. The Board recommends that the BCTL determine the eligible cash investments under the Petroleum Fund Law and confirm with the Ministry of Finance. Given that the BCTL is seeking to implement currency hedging as soon as practicable, the Board recommends that the Ministry of Finance and the BCTL determine the final parameters for the mandate in Annex 1, including the effective date. The Board need not provide further advice unless there is a change in the risk profile.

Matters relating to the Petroleum Fund Law were raised during the course of our meetings in February. The Investment Advisory Board has not had access to legal advice and understand that the BCTL will obtain advice where required in this case. Independent legal advice to the Board may be necessary in other circumstances and the Investment Advisory Board requests that arrangements be made to accommodate this in future.

## Strictly confidential in accordance with Article 32.2(d) of the Petroleum Fund Law until the date as the recommendations in this advice have been fully implemented

The Investment Advisory Board believes that including the cash collateral in the hedged bond mandate and adopting a composite benchmark is a workable solution that can be implemented quickly. The Board stands ready to provide assistance if there are unexpected complications. The Investment Advisory Board would like to thank the BCTL and the BIS, the approved manager, for working towards resolving the operational issues with executing currency derivatives.

Please do not hesitate to contact the Board if further information is required.

Yours Sincerely

Olgario de Castro

Investment Advisory Board

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Chairman

Date: 1 May 2020

To
H.E. Sara Lobo Brites
Interim Minister and Vice Minister of Finance
Democratic Republic of Timor-Leste

Subject: Confirmation of the Petroleum Fund's Investment Strategy

Dear Interim Minister and Vice Minister,

As Your Excellency is aware, the coronavirus pandemic is having a substantial impact on the global economy, financial markets and Timor-Leste's national wealth. Economic activity has contracted as countries shut down to control the virus. Unprecedented fiscal and monetary policy responses are trying to limit the economic damage but there will still be a sharp recession this year.

Financial markets are forward-looking and pronounced uncertainty has resulted in volatility. Equities fell sharply in the first quarter of 2020, although recovered somewhat in late March and April. The value of the Fund's investment in equities declined in line with global markets in quarter 1. At the same time, the value of the Fund's fixed interest assets increased. Government bond yields declined with monetary policy rates, quantitative easing measures and economic projections. Bond prices move in the opposite direction to yields, so the Fund recorded a capital gain on the US Treasury mandates, which make up 45% of the total portfolio.

The aggregate return for the Petroleum Fund in quarter 1 is negative 4.7%. This is well within the range of expected returns during an adverse event. It is worth recalling last year's record return of 13.25% or \$2.1 billion, which was driven by gains in equities. This illustrates the potential year-to-year variation in returns and stakeholders may view last year's performance as a buffer against the volatility this year.

It is prudent to return to our fundamental beliefs in times of stress. The Petroleum Fund has a long horizon and long-term investors benefit from holding growth assets like equities. The growth component of a portfolio provides higher long-run returns and necessarily comes with higher risk than the defensive component, such as cash and government bonds. Given it is very difficult to time when equities will do well and when they will do poorly, the investment needs to be maintained during the cycle, including adverse periods, in order to earn the higher return. This strategy has proved to be successful for our Fund. Since equities were first introduced in 2010 until the end of March this year, the average annual return from equities has been 7.1%, while bonds have returned 2.0%. The expected return from the fixed interest portfolio in future years is lower, reflecting record low government bond yields. The allocation has served its primary purpose this year by mitigating the volatility in equity returns. The Fund also has ample liquid assets, including cash, to meet withdrawals to finance the government's expenditure.

Therefore, the IAB's advice is to maintain the strategic asset allocation. As noted, long-term investors are rewarded for withstanding volatility and the declines in the first quarter can be recovered in time. The Board's advice in October 2019 continues to apply. Greater clarity on the Fund's cash flows and its horizon will help in determining the asset allocation going forward. For example, if the Fund's horizon is closer to 10 years, then it may be appropriate to gradually but progressively reduce the equity allocation. This could potentially start in 2021. The opportunity cost of reducing the equity allocation is a much lower expected return. Alternatively, a longer horizon may warrant maintaining the current allocation in the coming years. The Board is planning a workshop in late May 2020 and requests guidance from the Ministry of Finance and the government on these projections.

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The Investment Advisory Board trusts that this advice is helpful to Your Excellency and the government during this challenging time. The IAB would like to thank the staff at the BCTL and the Ministry of Finance for their excellent work. Please do not hesitate to contact the Board if you require anything further.

Yours Sincerely

Olgario de stro

Investment Advisory Board

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Chairman

Date: 12 August 2020

To H.E. Fernando Hanjam Minister of Finance Democratic Republic of Timor-Leste

Subject: Adjusting the Petroleum Fund's asset allocation for withdrawals

The Investment Advisory Board would like to begin by congratulating Your Excellency on being appointed as the Minister of Finance.

The Petroleum Fund has been a remarkable success. It has enabled Timor-Leste to save a significant share of its petroleum revenue, with the Fund's balance recently rising to over \$18 billion for the first time. The Fund has also financed \$11.8 billion of government expenditure since 2005, including vital infrastructure such as national electrification and roads, as well as much-needed expenditure on schools and hospitals. The Fund's investments have performed in line with our expectations, returning 4.45% per annum since inception until June 2020. Annual returns over the past five years have averaged a little more than 5%, corresponding with the 3% real return target. The equity allocation has driven the Fund's performance. The investment strategy is founded on a long-term horizon, which allows the Fund to weather short-term volatility in stock markets.

However, as the Board has explained in its previous advice, the fiscal framework on which the investment strategy was originally based is not being followed.¹ Governments have adopted a front-loading policy over the past 10 years where withdrawals have been well in excess of the 3% ESI rule. Since the Fund's inception, the total of withdrawals is almost \$4.5 billion higher than the cumulative ESI. We acknowledge that the excess withdrawals are aimed at economic development, which is certainly needed. However, a framework is required to balance those needs with the desire to maintain savings for future generations. To illustrate, if the expenditure in the first State Budget for 2020 is extrapolated, the Fund is likely to be fully depleted in a little more than 10 years. That is not enough time for substantial growth in domestic revenues. Coinciding with the elevated withdrawals, future investment returns are expected to be lower because of historically low interest rates. The gap between withdrawals and expected returns challenges the long-term thinking that underlies the Fund's investment strategy.

As good fiduciaries, the IAB must be forward-looking when advising on the Fund's investments. The investment strategy needs to account for the Petroleum Fund's expected cash flow profile and the resulting investment horizon. For that reason, the IAB has sought guidance from previous Ministers on expected withdrawals, while expressing concerns about the Fund's long-term sustainability.<sup>2</sup> The Petroleum Fund Administration Unit (PFAU) has recently briefed the Board on a proposed recuperation plan where withdrawals are projected to be \$1.2 billion per year over the next three years. The Board understands that this plan will be presented to the Council of Ministers later this

<sup>&</sup>lt;sup>1</sup> 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.

<sup>2</sup> Ibid.



month. Such clear projections over a multiple-year horizon are welcome when formulating advice on the Fund's investments.

The IAB notes that the annual amount is considerably higher than the 3% ESI guideline, which is \$544 million for the 2020 Budget. The outflows will coincide with limited inflows from petroleum revenue. Production from Bayu-Undan is coming to an end and it will be a number of years before Greater Sunrise begins production. During this period, the Fund's balance is expected to decline as withdrawals exceed investment returns and existing investments will need to be sold to finance the outflows.

It is critical that investment risk is managed during this decumulation phase. The outflows to finance the recuperation plan are a known liability with a relatively short horizon. The Board believes that best practice involves holding that amount in a separate "tagged" account of highly liquid, low-risk securities. Low interest rates mean that the expected return on this account will be very low relative to historical returns.

Creating a separate account of low-risk assets to finance state budgets over the next three years will mean reducing the Fund's aggregate equity allocation. The IAB will also review the asset allocation for the remainder of the Fund. In the absence of a fiscal rule being adhered to, withdrawals are highly uncertain, as is the size and timing of new petroleum inflows. The potential for continued drawdowns may warrant lowering the current 35% allocation to equities in the main body of the Fund.

It is timely to account for the new information on withdrawals. The IAB requests a virtual meeting with Your Excellency this month to introduce ourselves and outline this project. Our plan is to receive formal guidance from the Ministry of Finance on expected withdrawals; engage an investment consulting firm to help ensure our recommendations maximise the Fund's expected return given its circumstances; and provide advice to Your Excellency as soon as possible on modifying the investment strategy. Lastly, clarity on withdrawals and inflows beyond the next three years will assist in determining the investment strategy in future years. The IAB strongly supports the Ministry of Finance in prioritising development of a sustainable fiscal path, whether through a medium-term fiscal plan or a fiscal rule, to meet Timor-Leste's development needs.

The Board looks forward to meeting Your Excellency. Given the dwindling inflows over the coming years, a clear structure is needed to meet the dual objectives of financing development and maintaining savings for future generations. The considerable volatility in financial markets experienced this year helps to illustrate the importance of clear investment objectives and holding a corresponding allocation of assets.

Yours sincerely

Olgario de Castro

Date: 12 August 2020

To H.E. Fernando Hanjam Minister of Finance Democratic Republic of Timor-Leste

Subject: The Petroleum Fund's Rebalancing Policy

Dear Minister,

The Secretariat of the Investment Advisory Board presented to the IAB on the Petroleum Fund's current rebalancing process and alternative approaches during the Board's workshop in May 2020. Rebalancing is an essential part of long-term investing where assets are bought and sold to bring their allocations back in line with the optimal weights in the strategic asset allocation. Rebalancing has been shown to provide higher risk-adjusted returns over the long-term compared to allowing the weights to drift with the assets' performance.

The Board agrees with the recommended rebalancing policy subsequently presented by the Ministry of Finance's Petroleum Fund Administration Unit at the IAB's meeting on 1 July 2020. Specifying the ranges for rebalancing at the asset class level is recommended rather than at the mandate level. The new rule has a similar effect in practice and is operationally similar. It reflects the risk characteristics of the Petroleum Fund portfolio, which is comprised of equities, the risk asset, and fixed interest, the low-risk asset class that is mainly government bonds. The equity allocation is the primary determinant of the portfolio's risk. Executing a disciplined rebalancing strategy between the risk asset (equities) and the low risk asset (fixed interest) keeps the portfolio's risk aligned with the Fund's goals and risk tolerance, and improves long-term results relative to allowing the weights to

The Board agrees with the proposed +/-5 per cent threshold rebalancing rule for the total equity allocation. The portfolio's allocations will continue to be reviewed by the BCTL on a monthly basis. When triggered, there will be a full rebalance of the investment mandates to near their target weights, subject to the BCTL's discretion not to undertake smaller trades. The BCTL will continue to use partial "rebalancing" to finance the government's withdrawals from the most overweight mandates. A +/- 2.5 per cent range will continue to apply to the Cash mandate.

The BCTL has confirmed that they are comfortable with the proposal and that the changes can be implemented. If Your Excellency approves, the policy can be incorporated into the Operational Management Agreement between the Ministry of Finance and the BCTL. The details, including the treatment of the loan to Timor GAP, will be determined by the Ministry and the BCTL.

Please do not hesitate to contact the Board if Your Excellency requires further information.

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Olgario de Castro

Chairman

Date: 13 November 2020

To
H.E. Sara Lobo Brites
Vice Minister and Acting Minister of Finance
Democratic Republic of Timor-Leste

#### Subject: Segmenting the Fund to Account for Near-Term Withdrawals

Dear Minister,

The Investment Advisory Board (IAB) is mandated by law to advise the Minister of Finance on any matter relating to the investment strategy, or the management of, the Petroleum Fund.

Since 2015, the Fund's balance has fluctuated roughly between USD 16-18 billion. Net cash outflows from the Petroleum Fund are expected at least until the inflows from a new oil field or the existing fields of the Greater Sunrise, commence. During this period, the Fund's balance is expected to decline as projected withdrawals exceed investment returns. Current projections suggest that it is likely that the fund balance will approach zero around the expected time of new inflows, specifically those inflows from the Greater Sunrise fields. This issue was discussed in the IAB's advice in November 2019 and August 2020.

The IAB has recently been informed that the Budget Book 2021's projected withdrawals over the next three years will constitute approximately 30 percent of the current fund balance, or USD 5.7 billion.

The IAB holds the opinion that investment horizon is relevant to its advice on the level of risk in a portfolio. This is based on the belief that to realize the expected risk premium from equities, the investor needs to be able to hold exposure through drawdowns or cycles of increased volatility. If funds are to be withdrawn within a shorter time frame those funds may not be able to regain their value following adverse market moves.

Currently, 5% of the Petroleum Fund is held in cash. That weight was designed to finance approximately the next 12 months of expected net cash outflows. Every 12 months new information regarding projected net withdrawals from the fund is reviewed as part of an SAA review. With higher withdrawals expected in 2021, the cash allocation will need to increase, resulting in a lower equity allocation.

This arrangement of having cash to cover the next year of withdrawals has been motivated by a high degree of uncertainty on the size of withdrawals more than 12 months into the future, and in uncertainty on the overall direction of the size of the fund. The recent fiscal projections out to three years resolve some of this uncertainty and motivates the IAB to review the arrangement.

The IAB advises your Excellency to increase the funds held in cash and, potentially, short-term bonds to facilitate withdrawals to three years of projected cash outflows. The amount should reflect the Ministry of Finance's and the Government's best estimate of withdrawals over the next three years. In effect the new arrangement will introduce a larger cash segment to the Petroleum Fund while the allocation in the long-term segment of the fund will remain unchanged with weights 35/65 percent to equities and bonds. The current projection in the Budget for the next three years of outflow implies an effective allocation to equities in the entire Petroleum fund being reduced from the current 34% to approximately 23%.



While this reduction in allocation to equities will moderately reduce the expected return, the IAB sees larger benefits from reducing the risk in near-term projected withdrawals. This advice means that the investment time-horizon for the long-term segment is more than three years. Based on available projections the total life of the fund is somewhere between 9 and 20 years, depending on future returns and withdrawals. While three years is in the shorter end of a spectrum for a typical equity investment horizon, the IAB finds that segmentation to be an acceptable trade-off between reducing risk in the near term versus being able to participate in upside risk – given the still present uncertainty in withdrawals after three years. An annual review of the arrangement will still be needed to account for the projected withdrawals for the upcoming three years. It is important that the projections are timely and as precise as possible because it defines the liability of the Fund. The Ministry of Finance and the Government need to prioritize resources to produce those projections.

Moreover, the IAB advises that a rules-based regime for adding funds to the three-years cash segment, in accordance with updated projections, is established. Details of the regime should be developed by the PFPMO with input from the BCTL.

This advice has been validated by analysis and conclusions the IAB has procured from an external consultant. That report investigates a range of alternatives in terms of number of segments, different allocation options for the segments, and additional issues (including scenario and stress testing). The report also suggests a detailed rules-based regime. The IAB suggests the PFPMO base the operational solution on that report.

The IAB advises a decision to be implemented on this advice to reduce risk without undue delay, in accordance with the degree of confidence in the projected cash withdrawals. The IAB stands ready to provide further guidance or advice as required.

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## Annex XIII. TLPF implementation of the Santiago Principles

#### TIMOR-LESTE PETROLEUM FUND

## IMPLEMENTATION OF THE GENERALLY ACCEPTED PRINCIPLES AND PRACTICES "SANTIAGO PRINCIPLES"

The Petroleum Fund is an active member of the International Forum for Sovereign Wealth Funds (IFSWF). The cornerstone of the IFSWF is the "Santiago Principles", 24 Generally Accepted Principles and Practices for sovereign wealth funds. The Principles are designed to promote good governance, accountability, transparency and prudent investment practices whilst encouraging a more open dialogue and deeper understanding of sovereign wealth fund activities.

All members of the IFSWF voluntarily endorse the Santiago Principles and seek to implement them in their governance and investment practices. Members regularly undertake self-assessments of their adherence to the Principles. The Timor-Leste Petroleum Fund conducts an annual review, which is published in the Fund's Annual Report and on the IFSWF's website. The Ministry of Finance is responsible for the overall management of the Petroleum Fund and has reviewed the Petroleum Fund's adherence to the Santiago Principles in the table below. This is the tenth self-assessment by the Petroleum Fund.

Key sources are identified for each principle. Reference is made throughout the document to the following formative documents, which are available on the Ministry of Finance's website <a href="https://www.mof.gov.tl/budget-spending/petroleum-fund/?lang=en">https://www.mof.gov.tl/budget-spending/petroleum-fund/?lang=en</a>

The Petroleum Fund Law: Petroleum Fund Law No. 9/2005, of 3rd of August as amended by the Law No. 12/2011, of 28th of September.

The Petroleum Fund Operational Management Agreement (OMA), 25 June 2009, between the Minister of Finance and the BCTL (Banco Central de Timor-Leste), the appointed operational manager of the Petroleum Fund.

The Petroleum Fund Law has been supplemented by amendments to the Petroleum Activities Law No. 13/2005, of 2<sup>nd</sup> of September, 2<sup>nd</sup> amendment by the Law No. 6/2019 of 4<sup>th</sup> of December.

The BCTL's website also provides an overview of the Petroleum Fund, along with the Petroleum Fund's Quarterly Reports and Annual reports with financial statements. Monthly performance reports are also published.

 $\underline{https://www.bancocentral.tl/en/go/about-petroleum-fundhttps://www.bancocentral.tl/en/go/publications-key-report-petroleum-fund-report}$ 

Information on the Petroleum Fund's Investment Advisory Board (IAB) is published on the Ministry of Finance and BCTL websites:

https://www.mof.gov.tl/budget-spending/petroleum-fund/?lang=en

https://www.bancocentral.tl/en/go/investment-advisory-board3

Principle	Implementation	
I. Legal framework, objectives, and coordination with macroeconomic policies		
1. The legal framework for the SWF should be sound and support its effective operation and the achievement of its stated objective(s).	The Timor-Leste Petroleum Fund was established to fulfil the requirement in the Constitution for the establishment of mandatory financial reserves from the exploitation of the natural resources.	
1.1. The legal framework for the SWF should ensure legal soundness of the SWF and its transactions.	Timor-Leste's Parliament established the legal framework for the Petroleum Fund in the Petroleum Fund Law. This was supplemented by amendments to the Petroleum Activities Law.	
1.2. The key features of the SWF's legal basis and structure, as well as the legal relationship between the SWF and other state bodies, should be publicly disclosed.	The Fund is formed as an account of the Ministry of Finance held in the Central Bank of Timor-Leste (BCTL, Banco Central de Timor-Leste), rather than as a separate legal entity.  The Petroleum Fund Law -  • provides mechanisms that assist Timor-Leste to sustainably manage its petroleum revenue,  • details the parameters for operating and managing the Petroleum Fund,  • defines the asset allocation guidelines and risk limits,  • governs the collection and management of the receipts,  • regulates transfers to the State Budget,  • defines clear roles and responsibilities of the entities involved in the management of the Fund, and  • provides for accountability and oversight of these activities.  The Petroleum Fund Law requires the Minister of Finance to enter into an agreement with the Operational Manager. The Operational Management Agreement was signed between the Ministry of Finance and the Operational Manager (BCTL) on 12 October 2005 with later amendments. It specifies the key functions and competencies of the Ministry of Finance, which is responsible for the overall management of the Fund, and the BCTL, which is responsible for the operational management of the Fund.	
	Sources: Petroleum Fund Law, Petroleum Activities Law, Operational Management Agreement	
2. The policy purpose of the SWF should be clearly defined and publicly disclosed.	The Petroleum Fund accumulates petroleum revenues from the extraction of natural resources. The preamble of the Petroleum Fund Law decrees that the purpose of establishing the Fund is to contribute to a prudent management of the petroleum resources for the benefit of both current and future generations. The Petroleum Fund is a tool that contributes to sound fiscal policy, where appropriate consideration and weight is given to the long-term interest of Timor-Leste's citizens. The Petroleum Fund finances Government expenditure and acts as a savings vehicle for future generations.  Explanations of the purpose of the Petroleum Fund are provided by the Ministry of Finance in the Annual Report, along with regular public consultations.	
	Sources: Petroleum Fund Law, Annual Reports	
3. Where the SWF's activities have significant direct domestic macroeconomic implications, those activities should be closely coordinated with the domestic fiscal and monetary authorities, so as to ensure consistency with the overall macroeconomic policies.	The Petroleum Fund is integrated into the State Budget. Transfers are made from the Petroleum Fund to the State Budget to finance the Government's budget deficit. Transfers are guided by the Estimated Sustainable Income (ESI), the amount that can be transferred without depleting the long-term real value of Petroleum Wealth, thereby ensuring the sustainability of the Fund. The Petroleum Fund's investments are primarily in overseas financial market instruments. Following amendments to the Petroleum Activities Law, the Fund can also invest in petroleum operations in the national territory or abroad, subject to a 5% exposure limit.  The Ministry of Finance is responsible for the overall management of the Petroleum Fund and also coordinates the preparation, discussion and execution of the Government's budget.  Sources: Petroleum Fund Law, Petroleum Activities Law	

#### Principle

- 4. There should be clear and publicly disclosed policies, rules, procedures, or arrangements in relation to the SWF's general approach to funding, withdrawal, and spending operations.
- 4.1. The source of SWF funding should be publicly disclosed.
- 4.2. The general approach to withdrawals from the SWF and spending on behalf of the Government should be publicly disclosed.

#### **Implementation**

The Petroleum Fund Law clearly defines the methods of funding and withdrawals.

All of Timor-Leste's petroleum revenues flow into the Petroleum Fund. The Petroleum Fund Law defines what constitutes petroleum fund receipts and sets out the mechanisms for handling these receipts. The returns on the Petroleum Fund's investments also contribute to its capital.

The Petroleum Fund Law also sets out the requirements for withdrawals. The only permissible transfers out of the Petroleum Fund is to the State Budget. The State Budget identifies the contribution made by the Fund to the Government's expenditure. Withdrawals are guided by the ESI rule (see GAPP 3). Parliament may approve a Budget transferring more than the ESI where the Government has provided justification that it is in the long-term interest of Timor-Leste.

Detailed information about receipts and transfers to the Government are publicly disclosed in the Petroleum Fund's Annual Reports, the General State Budget from the Ministry of Finance, and the Petroleum Fund's quarterly and monthly reports from the BCTL.

A complete list of all entities making payments to the Petroleum Fund is published annually both in the Petroleum Fund's Annual Report and in Timor-Leste's EITI (Extractive Industries Transparency Initiative) reports. Timor-Leste was accepted as an EITI compliant country on 1 July 2010.

Sources: Petroleum Fund Law, Annual Reports, Quarterly Reports, TL-EITI website www.eiti.gov.tl

5. The relevant statistical data pertaining to the SWF should be reported on a timely basis to the owner, or as otherwise required, for inclusion where appropriate in macroeconomic data sets.

Transparency is a fundamental principle of the Petroleum Fund Law. The Law sets out the requirements for all entities involved in the management of the Fund to provide and publish the reports pertaining to the activities of the Fund.

The Ministry of Finance prepares and publishes the Petroleum Fund's Annual Report along with the Petroleum Fund's financial statements. The Law requires an international accredited auditor to issue and publish an annual audit report on the Fund's financial statements. The Ministry of Finance also prepares the State Budget for the National Parliament.

The BCTL, on a quarterly basis, provides reports to the Minister of Finance on the Fund's performance and market value over the quarter. The BCTL also publishes a monthly report on the Fund.

All information is publicly available on the MoF and BCTL websites.

Sources: Petroleum Fund Law, Annual Reports, Quarterly Reports, Monthly Performance Reports

#### II. Institutional Framework and Governance Structure

6. The governance framework for the SWF should be sound and establish a clear and effective division of roles and responsibilities in order to facilitate accountability and operational independence in the management of the SWF to pursue its objectives.

The Parliament of Timor-Leste established the Petroleum Fund Law, which defines the roles and responsibilities of the entities involved in the management of the Fund.

The Minister of Finance is responsible for the overall management of the Petroleum Fund. The Minister of Finance sets the investment policy, enters into a management agreement with the Operational Manager and monitors the Fund's performance. The Investment Advisory Board (IAB) provides independent advice to the Minister on the investment policy and management, including the investment mandates for the Fund.

The BCTL, as Operational Manager, is responsible for the Fund's operations including implementing the investment mandates set by the Minister of Finance. The BCTL manages some of the portfolio internally and also contracts with external managers and monitors their performance.

Sources: Petroleum Fund Law, Operational Management Agreement.

Principle	Implementation
7. The owner should set the objectives of the SWF, appoint the members of its governing body(ies) in accordance with clearly defined procedures, and exercise oversight over the SWF's operations.	Parliament, representing the people of Timor-Leste, sets the objectives of the Fund in the Petroleum Fund Law (see GAPP 1). The Petroleum Fund Consultative Council (PFCC) is a statutory body appointed to advise Parliament on matters relating to the Petroleum Fund.  The Petroleum Fund Law defines the broad asset allocation and risk limits. The Minister of Finance is responsible for the overall management of the Fund, which includes determining the investment policy in accordance with the provisions in the Law. The Minister of Finance presents to Parliament the investment policy and any changes to the principal asset allocation that will materially impact on the Fund's overall level of risk. The Minister of Finance sets the investment mandates, which reflect the acceptable level of risk. The Ministry of Finance also exercises oversight of the overall Fund.
	The Minister of Finance receives independent advice from the Investment Advisory Board (IAB) on the investment strategy and management of the Fund. The Prime Minister appoints members of the IAB on the advice of the MoF.
	The Central Bank is the Operational Manager. The BCTL's specific responsibilities are set out in an Operational Management Agreement with the Minister of Finance. This includes reporting requirements that allow the Ministry of Finance to exercise its oversight role.
	Sources: Petroleum Fund Law, Operational Management Agreement.
8. The governing body (ies) should act in the best interests of the SWF, and have a clear mandate and adequate authority and competency to carry out its functions.	The Minister of Finance has the authority and competency to determine the strategy and policies to achieve the Petroleum Fund's objectives. The Minister of Finance is supported by the Petroleum Fund Policy and Management Office at the MoF. The BCTL has been delegated the responsibility for operational management. The Operational Management Agreement seeks to ensure that the BCTL acts in the best interests of the Fund and sets out the operational manager's responsibilities.
	In carrying out his/her functions, the Minister of Finance is required to seek advice from the IAB. The Law requires that at least three of the IAB members have significant knowledge and experience in financial investment management.
	Further to the discussion in Principle 7, the Minister of Finance is accountable to the Parliament and is required to provide relevant reporting. The composition, role and authority of the PFCC seek to safeguard the proper management of the Petroleum Fund.
	Sources: Petroleum Fund Law, Operational Management Agreement.
9. The operational management of the SWF should implement the SWF's strategies in an independent manner and in accordance with clearly defined responsibilities.	The Petroleum Fund Law defines the roles and responsibilities of the Operational Manager, the BCTL. The BCTL's specific responsibilities are clearly set out in the Operational Management Agreement (OMA) with the Minister of Finance. The BCTL is delegated with authority to make decisions relating to the operational management of the Fund as set out in the OMA. The Operational Manager is able to deduct reasonable management expenses, in accordance with the OMA.
	Sources: Petroleum Fund Law, Operational Management Agreement.
10. The accountability framework for the SWF's operations should be clearly defined in the relevant legislation, charter, other constitutive documents, or management agreement.	Accountability arrangements are detailed in the Petroleum Fund Law and the Operational Management Agreement.
	The Ministry of Finance is accountable to Parliament and the public. The Minister of Finance reports to the Parliament on the performance of the Fund on an annual basis and is required to publish all advice received from the IAB unedited in the Annual Report, or earlier upon request.
	The Operational Manager, the BCTL, is appointed by the Minister of Finance and is accountable to the Minister for operational management of the

Principle	Implementation
	Petroleum Fund. The BCTL may appoint external investment managers subject to the Minister's consent. The BCTL reports to the Minister on the Fund's performance on a quarterly basis. These reports are published and available on the Central Bank's website.
	Sources: Petroleum Fund Law, Operational Management Agreement, Quarterly Reports, Annual Report.
11. An annual report and accompanying financial statements on the SWF's operations and performance should be prepared in a timely fashion and in accordance with recognized international or national accounting standards in a consistent manner.	The Petroleum Fund Law requires the Government to prepare and submit to the Parliament an annual report of the Fund's operations and performance for the fiscal year, including financial statements prepared according to International Financial Reporting Standards and audited by an internationally recognized auditor, at the same time as the annual financial statements of that year. The Law identifies the minimum information to be disclosed in the Annual Report.
	The Petroleum Fund Law provides that the Director of Treasury of the Ministry of Finance is responsible for maintaining the Petroleum Fund accounts and records, and preparing financial statements, in accordance with the International Financial Reporting Standards. Accounting and preparation of the financial statements is delegated to the BCTL as Operational Manager.
	Sources: Petroleum Fund Law, Operational Management Agreement, Annual Report.
12. The SWF's operations and financial statements should be audited annually in accordance with recognized international or national auditing standards in a consistent manner.	The Petroleum Fund Law requires the annual financial statements to be audited by an internationally recognized accounting firm. The international auditor is appointed by the Ministry of Finance and is subject to strict qualification criteria and a transparent selection process. The audited financial statements are submitted to the Parliament together with the Petroleum Fund Annual Report.
	The Petroleum Fund Law also requires the accounts, records and other documents relating to the Petroleum Fund to be internally audited every six months. This is undertaken by the BCTL's Internal Audit, which is independent from the investment management area.
	Sources: Petroleum Fund Law, Operational Management Agreement, Annual Report.
13. Professional and ethical standards should be clearly defined and made known to the members of the SWF's governing	Each of the Petroleum Fund's institutions have professional and ethical standards to ensure the soundness and integrity of the Fund's operations.
to the members of the SWF's governing body(ies), management, and staff.	The professional and ethical standards for the Ministry of Finance's staff are defined by the Public Service Law no. 8/2004, 16 <sup>th</sup> of June, as amended by Law no.5/2009, 15 <sup>th</sup> of July.
	All the staff of the Operational Manager are bound by the BCTL's Code of Conduct.  https://www.bancocentral.tl/en/go/code-of-conduct
	The Petroleum Fund Law also requires members of the IAB, before taking office, to declare in writing that their appointment has no conflicts with any personal or family interests. The IAB has established its own Standard of Conduct in its Operational Regulations, which includes disclosures of potential conflicts of interest. The Operational Regulations are published on the Ministry of Finance website.
	Sources: Petroleum Fund Law, BCTL, MoF and Ministry of Justice websites. http://www.mj.gov.tl/jornal/public/docs/2009/serie_1/serie1_no25.pdf
14. Dealing with third parties for the purpose of the SWF's operational	The BCTL's dealings with third parties as operational manager are based on economic and financial grounds and follow clear procedures.
management should be based on economic and financial grounds, and follow clear rules and procedures.	The Operational Management Agreement provides that the BCTL is responsible for the tendering and selection process of external investments managers. This is based on the parameters for the investment mandate provided by the Minister of Finance. The Petroleum Fund Law also specifies

Principle	Implementation
	minimum requirements. The Minister must be satisfied that each external investment manager has sufficient equity, guarantees and insurance; a sound record of operational and financial performance; and has business references and a reputation of the highest standard.
	The BCTL is responsible for tendering for other service providers, including the Petroleum Fund's custodian. The BCTL's selection procedure is rigorous, fair and transparent and in compliance with the substantive provisions of Timor-Leste's laws.
	Sources: Petroleum Fund Law, Operational Management Agreement.
15. SWF operations and activities in host countries should be conducted in compliance with all applicable regulatory and disclosure requirements of the	The Petroleum Fund Law requires the management of the Petroleum Fund to be conducted in compliance with all applicable regulatory and disclosure requirements of the countries in which the investments are made.
countries in which they operate.	Source: Petroleum Fund Law.
16. The governance framework and objectives, as well as the manner in which the SWF's management is operationally independent from the owner, should be publicly disclosed.	The Petroleum Fund's governance framework and objectives are established by Parliament in the Petroleum Fund Law. The Operational Management Agreement provides details of the division of responsibilities between the Ministry of Finance and the BCTL, along with accountability arrangements. The Minister of Finance is required to seek advice from the IAB, an independent Board staffed by investment experts, before making any decision relating to the Fund's investment strategy and management.  Information on the governance framework and objectives is published in the Petroleum Fund's Annual Report.  Sources: Petroleum Fund Law, Operational Management Agreement.
17. Relevant financial information regarding the SWF should be publicly disclosed to demonstrate its economic and financial orientation, so as to contribute to stability in international financial markets and enhance trust in recipient countries.	Information regarding the Petroleum Fund's asset allocation, its investment mandates and benchmarks and investment performance are published in the BCTL's quarterly performance reports and the Petroleum Fund's Annual Report and audited financial statements. A list of the Petroleum Fund's holdings is provided in the Annual Report. The reports are available on the BCTL's website.
	Sources: Petroleum Fund Law, Operational Management Agreement Annex 1, Quarterly Reports, Annual Report.
III. Investment and Risk Management Framework	

- 18. The SWF's investment policy should be clear and consistent with its defined objectives, risk tolerance, and investment strategy, as set by the owner or the governing body(ies), and be based on sound portfolio management principles.
- 18.1. The investment policy should guide the SWF's financial risk exposures and the possible use of leverage.
- 18.2. The investment policy should address the extent to which internal and/or external investment managers are used, the range of their activities and authority, and the process by which they are selected and their performance monitored.
- 18.3. A description of the investment policy of the SWF should be publicly disclosed.

The Fund's investment policy is directed by the provisions in the Petroleum Fund Law that define the asset allocation guidelines, eligible investments, concentration limits and investment principles, which include diversification and maximizing the risk-adjusted financial return.

The Ministry of Finance, on behalf of the Government, determines the investment policy, which is designed to meet the investment objectives of the Fund after taking into account the risk preference of the Timor-Leste people and any constraints under which the Fund operates. The IAB advises on the investment strategy. The advice of the IAB is guided by its publicly disclosed Investment Beliefs and Principles.

The investment policy is described in the Petroleum Fund's Annual Report. Annex 1 of the Operational Management Agreement specifies the Fund's strategic asset allocation and benchmark portfolio, the parameters for each of the investment mandates and the permissible use of derivatives.

The Minister of Finance, with advice from the IAB, determines whether a mandate will be internally or externally managed. The Ministry of Finance monitors the internally managed mandates. The selection process for external investment managers is undertaken by the BCTL as operational manager and is based on professional and commercial criteria. The external managers are given clearly defined mandates, including expected performance, risk and fees. Their performance is monitored by the BCTL.

Principle	Implementation
	Sources: Petroleum Fund Law, Operational Management Agreement, Quarterly Reports, Annual Report.
19. The SWF's investment decisions should aim to maximize risk-adjusted financial returns in a manner consistent with its investment policy, and based on economic and financial grounds.	The Petroleum Fund Law states that the aim of the investment policy is to maximize risk-adjusted financial returns after taking into account the purposes of the Fund and Timor-Leste's ability to bear risk. The Petroleum Fund's investments in offshore financial market instruments are based solely on these financial grounds.
19.1. If investment decisions are subject to other than economic and financial considerations, these should be clearly set out in the investment policy and be publicly disclosed.	The Petroleum Activities Law allows for the Petroleum Fund to invest in petroleum operations in national territory or overseas, subject to a 5% exposure limit. Economic development objectives may be accounted for in the investment decision in addition to financial considerations. The proposed allocation is required to be presented to Parliament and the rules and criteria for the investment need to be published.
19.2. The management of an SWF's assets should be consistent with what is generally accepted as sound asset management principles.	Sources: Petroleum Fund Law, Petroleum Activities Law.
20. The SWF should not seek or take advantage of privileged information or inappropriate influence by the broader Government in competing with private entities.	The Petroleum Fund's financial market investments are in offshore markets. The Fund has no access to privileged information or inappropriate influence from the broader Government in competing with private entities.  The objective of the Petroleum Fund's investment in petroleum operations is to facilitate the development of a national petroleum industry. Economic development will encourage private investment in Timor-Leste.
21. SWFs view shareholder ownership rights as a fundamental element of their equity investments' value. If an SWF chooses to exercise its ownership rights, it should do so in a manner that is consistent with its investment policy and protects the financial value of its investments. The SWF should publicly disclose its general approach to voting securities of listed entities, including the key factors guiding its exercise of ownership rights.	The BCTL, as operational manager, exercises the Petroleum Fund's shareholder ownership rights by engaging the Institutional Shareholder Services (ISS) proxy voting service.
22. The SWF should have a framework that identifies, assesses, and manages the risks of its operations.	The Petroleum Fund Law requires the Minister and the Operational Manager to develop and maintain policies, systems and procedures to ensure that the risks associated with the implementation of the investment strategy are identified, monitored and managed.
22.1. The risk management framework should include reliable information and timely reporting systems, which should enable the adequate monitoring and management of relevant risks within acceptable parameters and levels, control and incentive mechanisms, codes of conduct, business continuity planning, and an independent audit function.  22.2. The general approach to the SWF's risk management framework should be publicly disclosed.	The BCTL has developed an operational risk management framework for the Petroleum Fund. This includes a risk register that identifies the owner of the risk and the internal controls. The BCTL's Internal Audit area is independent from the investment management area and monitors that procedures are being followed and that the framework is effective. All the staff of the BCTL are bound by its Code of Conduct.
	The financial risk in the Petroleum Fund's strategy follows from the Ministry of Finance's investment policy, specifically the parameters for the global mandate and the investment mandates included in Annex 1 of the Operational Management Agreement. These conform with the financial parameters in the Petroleum Fund Law. The appropriate level of financial risk is assessed during regular asset allocation reviews. The Minister of Finance is required to present the investment policy to Parliament on an annual basis with the Annual Report or prior to making any changes to the principal asset allocation.
	The BCTL manages the global mandate, which includes rebalancing individual mandates to target allocations. The BCTL also monitors the compliance of the external managers with their risk targets. The BCTL reports on compliance to the Ministry of Finance in the quarterly performance report.

Principle	Implementation
	The Ministry of Finance monitors the Fund's performance including its risk exposure through the BCTL's quarterly performance reports. The Minister of Finance reports to the Parliament on an annual basis.
	Sources: Petroleum Fund Law, Operational Management Agreement, Quarterly Reports, Annual Reports.
23. The assets and investment performance (absolute and relative to benchmarks, if any) of the SWF should be measured and reported to the owner	The Petroleum Fund Law requires the Operational Manager, the BCTL, to report to the Minister of Finance on a quarterly basis the performance and activities of the Petroleum Fund relative to the benchmarks.
according to clearly defined principles or standards.	Performance reporting is prepared by the Fund's custodian, JP Morgan, in compliance with the Global Investment Performance Standards (GIPS) methodology. The quarterly report is published within 40 days after the end of every quarter.
	Sources: Petroleum Fund Law, Quarterly Reports.
24. A process of regular review of the implementation of the GAPP should be engaged in by or on behalf of the SWF.	The Ministry of Finance intends to review the Petroleum Fund's implementation of the Santiago Principles annually and publish the self-assessment in the Annual Report. This is the tenth review. The Petroleum Fund conducted its first review in 2010.
	Source: Annual Reports.



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# Petroleum Fund Policy and Management Office MINISTRY OF FINANCE DEMOCRATIC REPUBLIC OF TIMOR-LESTE

