Annual Report
Financial Committee

Advisory Committee to the Ministry of Finance
for Chile's Sovereign Wealth Funds

2016

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Preface

As stipulated in the Fiscal Responsibility Law of 2006, the Financial Committee was created in 2007 to advise the Finance Minister on the investment of Chile's two sovereign wealth funds: the Economic and Social Stabilization Fund (ESSF) and the Pension Reserve Fund (PRF). The Financial Committee is an independent external advisory board, whose members have a vast experience in economic and financial areas. The Committee meets periodically to analyze matters relating to the investment of the funds. This Report—the tenth prepared by the Committee—describes its work and activities in 2016.

The publication of this Report fulfills the requirement established under Decree N° 621, issued by the Ministry of Finance in 2007, which stipulates that the Committee must present an annual report on its work to the Finance Minister and submit a copy of this report to the Finance Commissions of the Senate and the House of Representatives and to the Joint Budget Commission.

The Committee

Executive **summary**

At the close of 2016, the market value of the funds was US$ 22,634 million, of which US$ 13,772 million was in the Economic and Social Stabilization Fund (ESSF) and US$ 8,862 million was in the Pension Reserve Fund (PRF). The net return in dollars in the year was 1.74% for the ESSF and 3.76% for the PRF, while the net return in pesos was -3.92% and -1.90%, respectively. In the case of the ESSF, the strategic asset allocation was 15% in bank deposits, 74% in sovereign bills and bonds, 3.5% in inflation-indexed sovereign bonds and 7.5% in stocks. For the PRF, the portfolio allocation was 48% in sovereign bonds, 17% in inflation-indexed sovereign bonds, 15% in stocks and 20% in corporate bonds.

Members of the Financial Committee

President José De Gregorio Rebeco

Mr. De Gregorio holds a Ph.D. in Economics from the Massachusetts Institute of Technology, a Master's degree in Industrial Engineering and a degree in Civil Industrial Engineering, both from Universidad de Chile. Currently, he is Professor at the Faculty of Economics and Business of Universidad de Chile, and Nonresident Senior Fellow at the Peterson Institute of International Economics. He has been President, Vice-President and Counselor of the Central Bank of Chile, Minister of Economics, Mining and Energy for the Chilean Government, and Economist at the International Monetary Fund. He joined the Committee in September 2014.

Vice President Cristián Eyzaguirre Johnston

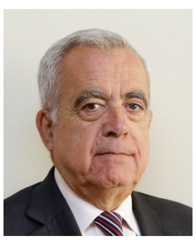
Mr. Eyzaguirre holds a MA in Economics from University of California, Berkeley, and a degree in Business Administration from Universidad de Chile. He was CEO at Banco Bice and CFO at CMPC Enterprises. He has been Deputy Director of Chile's Tax Service (SII for its acronym in Spanish), advisor at Federation of Chilean Industry (SOFOFA for its acronym in Spanish) and Professor at Universidad de Chile. He currently participates in the Board of Directors of several companies, and is a Member of the Investment Committee of Hogar de Cristo. He joined the Committee in March 2010.

Member Ricardo Budinich Diez

Mr. Ricardo Budnich holds a degree in industrial civil engineering and a Bachelor's degree in engineering science, both from the University of Chile. He is currently on the board of directors of Subsole and sits on a number of oversight committees for foreign private equity investment funds. His past positions include Head of Finance and Administration at Copec, Director at Sonacol and some of its subsidiaries, Chief Financial Officer at Casaideas and advisor to the board of directors, member of the Consultative Counsel of Fundación Copec-UC, member of the Investment Committee of Compañía de Seguros Cruz del Sur, and assistant professor at the University of Chile. He has also held various executive positions at companies in the financial sector. Mr. Budnich joined the Financial Committee in September 2016.

Member Jaime Casassus Vargas

Mr. Casassus holds a Ph.D. in Finance from Carnegie Mellon University and a degree in Civil Industrial Engineering from Universidad Católica de Chile. Currently, he is Professor at the Institute of Economics of Universidad Católica de Chile, Managing Editor at the journal "Quantitative Finance", Deputy Director at FinanceUC, and Director of the Economics Society of Chile. He was Visiting Professor at University of California, Berkeley. His research has been published in Journal of Finance, Review of Financial Studies, and Journal of Banking & Finance. He joined the Committee in September 2014.



Member Martín Costabal Llona

Mr. Costabal holds an MBA from the University of Chicago and a degree in Business Administration from Universidad Católica de Chile. He has performed as Finance Minister and Budget Director, executive of Empresas Pizarreño and Infraestructura Dos Mil, CEO of AFP Habitat and Member of the Technical Advisory Committee of Investment established by the Pension Reform. Currently he serves on the Boards of Directors of private companies. He joined the Committee in January 2007.

Member Igal Magendzo Weinberger

Mr. Magendzo holds a Ph.D. in Economics from University of California, Los Angeles, and a Bachelor's degree in Economics and Public Policy from the Hebrew University of Jerusalem. Currently, he is Chief Economist at Pacífico, Macroeconomía y Finanzas. He was Chief Economist for Hispanic America at Itaú, Manager of Macroeconomic Analysis at the Central Bank of Chile, Member of the Technical Advisory Committee of Investment established by the Pension Reform, Macroeconomic Advisor at the Ministry of Finance, and Professor at Universidad Adolfo Ibáñez and Universidad de Chile. Mr. Magendzo has published his work in specialized financial journals. He joined the Committee in September 2014.

CHAPTER 1

Fiscal policy and the funds' objectives, institutional framework and investment policy

A. Fiscal policy

Chile's fiscal policy is aimed at contributing to macroeconomic stability and providing public goods that increase opportunities and social protection for Chilean citizens.[1]

Since 2001, Chile's fiscal policy is guided by a structural balance rule or, more precisely, a cyclically adjusted balance rule,[2] which mitigates the effect on public finances of fluctuations in economic activity, the copper price and other secondary factors. This implies saving in boom times and being able to use those savings during cyclical downturns. As a result, the fiscal rule has a stabilizing effect on public finances and the economic cycle and improves access to financing for both the public and private sectors.

B. Objectives and rules on the use of the funds

To ensure the sustainability of public spending over time and contribute to the competitiveness of the economy, Law 20,128 on Fiscal Responsibility was passed in September 2006. This law created the Pension Reserve Fund (PRF) and authorized the President of the Republic to create the Economic and Social Stabilization Fund (ESSF), which was then officially established in February 2007. These two funds accumulate the resources resulting from the application of the structural balance rule as detailed below.

Objectives

The funds created by the Fiscal Responsibility Law (henceforth, the sovereign wealth funds) have specific objectives. In the case of the ESSF, the objectives are to accumulate resources to finance potential fiscal deficits and to amortize public debt, thereby contributing to cushioning fiscal spending against fluctuations in the world economy and the volatility of revenues from taxes, copper and other sources. The ESSF resources can also be used to finance the PRF if necessary. In the case of the PRF, the objective is to support the financing of fiscal liabilities deriving from the state pension guarantee for old-age and disability solidarity pension benefits, as well as old-age and disability solidarity pension contributions established by the Pension Reform. The PRF thus complements the financing of future pension-related contingencies.

Rules on fund contributions

The rules on establishing the funds and accumulating resources therein are established by law (see *Figure 1*).[3]

The PRF is increased each year by a minimum of 0.2% of the previous year's gross domestic product (GDP). If the effective fiscal surplus exceeds 0.2% of GDP, the PRF receives a contribution equivalent to the surplus, up to 0.5% of GDP. PRF contributions only have to be made until the fund reaches UF 900 million (unidad de fomento, UF).

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1 Decreto N° 892 de 2014, que establece las bases de la política fiscal, de acuerdo a lo dispuesto en el artículo 1° de la ley N° 20.128.

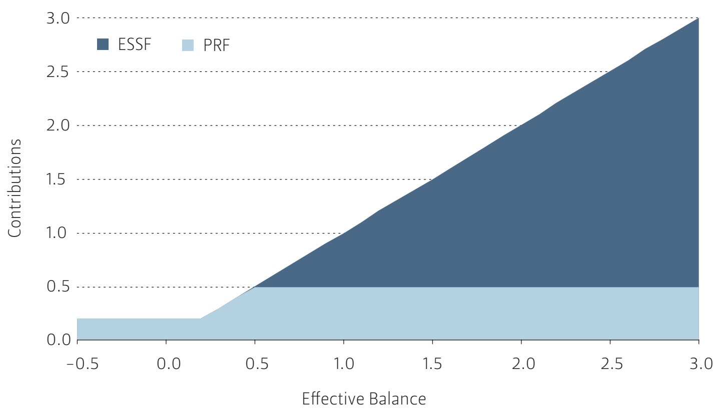
2 The structural balance rule (or cyclically adjusted balance rule) has undergone some changes since it was first implemented. For a detailed discussion of its design, modifications, application and results, see Marcel, Tokman, Valdés and Benavides (2001); García, García and Piedrabuena (2005); Rodríguez, Tokman, and Vega (2006); Velasco, Arenas, Rodríguez, Jorratt and Gamboni (2010); Comité Asesor para el diseño de una política fiscal de balance estructural de segunda generación para Chile (2011); Larraín, Costa, Cerda, Villena and Tomaselli (2011); Schmidt Hebbel (2012); and Velasco and Parrado (2012).

3 For the PRF, the Fiscal Responsibility Law; for the ESSF, Statutory Decree (DFL) N° 1, issued by the Ministry of Finance in 2006.

The yearly contribution to the ESSF corresponds to the balance of the effective fiscal surplus (if positive) after subtracting the PRF contribution, less public debt pay downs and any advance contributions to the fund.[4] Additionally the fund can receive extraordinary contributions from the sale of assets or debt issue.

FIGURE 1

Fiscal savings rule
(percent of GDP)



SOURCE: Ministry of Finance of Chile

Rules on the use of the funds

Starting in 2016, the PRF resources can be used to complement the financing of fiscal liabilities deriving from the state guarantee for old-age and disability solidarity pension benefits, as well as old-age and disability solidarity pension contributions. The annual withdrawal of PRF resources cannot exceed one-third of the difference between expenditures on pension liabilities in the current year and the pension expenditure in 2008, adjusted for inflation. Prior to 2016, withdrawals from the PRF were allowed equivalent to the returns generated in the previous year.

As of 2021, the PRF will cease to exist if the withdrawals in a calendar year do not exceed 5% of the fiscal pension expenditure established in that year's budget. When the PRF is eliminated, the remaining balance will be transferred to the ESSF.

The ESSF resources can be used at any time to complement fiscal revenues as needed to finance authorized public spending in the event of a fiscal deficit. These resources can also be used for the regular or extraordinary pay down of public debt (including Recognition Bonds) and for financing the annual contribution to the PRF, as per a decision by the Finance Minister.

Withdrawals from the ESSF and the PRF are effectuated through a decree from the Ministry of Finance.

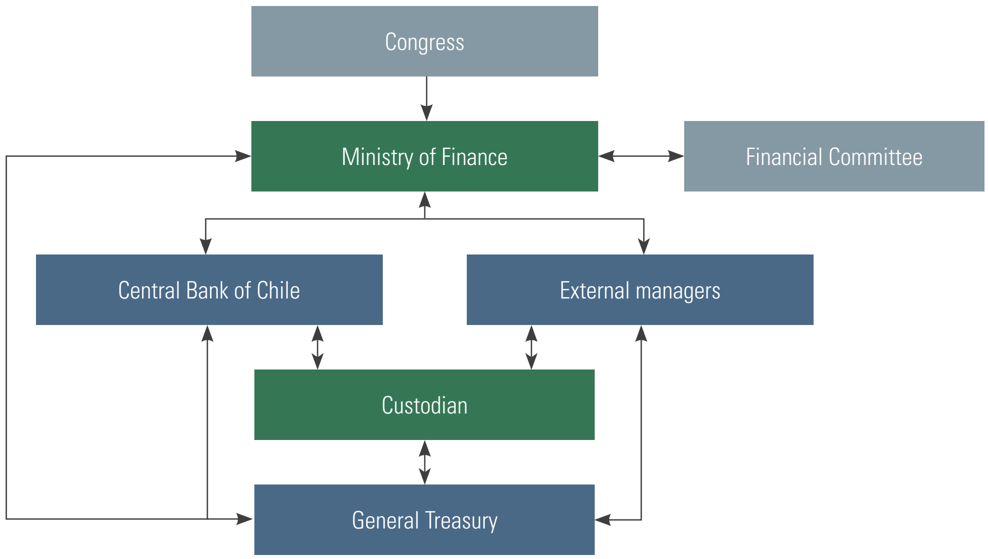
4 The current legislation allows the pay down of public debt and advance contributions to the ESSF using resources from the fiscal surplus of the current year, which must be deposited into the fund in the current or subsequent years.

C. Institutional framework

The legal framework establishes a clear division of roles and responsibilities in order to ensure accountability and operational independence in the management of the funds. This section provides a brief description of the roles of each of the bodies involved in fund management (see *Diagram 1*).

DIAGRAM 1

Institutional framework for Chile's sovereign wealth funds



SOURCE: Ministry of Finance of Chile

Ministry of Finance and dependent bodies

The Fiscal Responsibility Law establishes that the funds are the property of the Fisco of Chile and that the General Treasury holds the legal title to the resources. The law authorizes the Finance Minister to make decisions on how the funds are managed and to dictate their investment policies. To this end, the Ministry of Finance draws up the investment guidelines, which define the criteria that must be followed by the funds' managers. The Ministry monitors the managers' performance and compliance with the investment guidelines and issues monthly, quarterly and annual reports on the state of the funds.

The General Treasury is responsible for the funds' accounting and the preparation of their audited financial statements, for monitoring compliance with the investment limits, for reconciling information on the portfolios from the managers and the custodian and for approving payments to the managers. The Budget Office is responsible for budgetary issues related to the funds.

Central Bank of Chile

Executive Decree N° 1,383 (the Agency Decree), issued by the Ministry of Finance in 2006, appoints the Central Bank of Chile (CBC) to act as fiscal agent in the management and investment of the resources in both funds. In carrying out these functions, the CBC must strictly follow the investment guidelines issued by the Finance Minister. The CBC is authorized to delegate part of the management of the sovereign wealth funds to external managers.

Following a careful selection process carried out in 2011, the CBC contracted BlackRock Institutional Trust Company N.A., Mellon Capital Management Corporation and Rogge Global Partners PLC to manage the investment of 35% of the PRF portfolio starting in January 2012. In 2013, based on the recommendation of the Financial Committee, the Ministry of Finance instructed the CBC to contract BlackRock Institutional Trust Company N.A. and Mellon Capital Management Corporation to manage the ESSF stock portfolio, equivalent to 7.5% of the fund, taking into account that their mandate would be identical to the PRF's and that they were recently chosen from the selection process carried out for that fund.

Decree N° 1,618 of 2012 modified the Agency Decree to relieve the CBC of the management of the corporate fixed-income and stock portfolios of the ESSF and the PRF, whose management had been delegated by the CBC, in representation of the Fisco, to the aforementioned companies. In accordance with Decree N° 1,618 of 2012, the CBC's responsibilities with regard to the externally managed portfolios were significantly reduced as of 1 January 2014, being mainly limited to reconciling daily positions. With these changes, the contractual relationship with the external managers and other tasks previously carried out by the CBC were transferred to the Ministry of Finance and the General Treasury.

Financial Committee

The Fiscal Responsibility Law stipulates that the Ministry of Finance must establish an Advisory Committee to give advice to the Finance Minister on the sovereign wealth funds (henceforth, the Financial Committee). This Committee monitors the investment of the funds' resources and advises the Minister on the definition of the investment policies consistent with the funds' objectives. In compliance with these provisions, on 23 December 2006, the Finance Minister announced the establishment of both the sovereign wealth funds and the Financial Committee. The Committee was then officially created through Decree N° 621, issued by the Ministry of Finance in 2007. In accordance with that decree, the Committee must be made up of six members who have experience in investment portfolio management, have held an executive position in a financial institution or have held or currently hold an academic post. The six Committee members are appointed for two years, with half the seats being renewed each year. The Committee's president receives a fee per session of 25.5 UTMs (unidades tributarias mensuales, UTM), with an annual cap of 127.5 UTMs. The remaining members receive a fee of 17 UTMs per session, with an annual cap of 85 UTMs. The Committee must meet at least once every six months, but in practice it has met at least five times a year.

Decree N° 621 also stipulated the Financial Committee's functions and the rules of procedure for its proper functioning. Thus, the duties and powers of the Committee are as follows:

- To advise the Finance Minister, when requested, on key issues related to the funds' investment policy, such as the distribution of investments by asset class (asset allocation), the incorporation of new investment alternatives, the specification of portfolio benchmarks (see *Box 1*), the permissible range of deviation from the asset allocation and the limits on the funds' investment possibilities;

- To submit recommendations to the Finance Minister, when requested, on custody and investment instructions and on the tender and selection processes for the management of the funds' portfolios;

- To express an opinion at the request of the Finance Minister about the structure and content of the annual reports on the funds' portfolio management that are presented to the Ministry of Finance by the institution(s) responsible for their management or custody and, on the basis of these reports, to express an opinion about the funds' management and, particularly, its consistency with their investment policies;

- To express an opinion about the structure and content of the reports on the funds prepared quarterly by the Ministry of Finance;

- To advise the Finance Minister, when requested, on any matter related to the funds' investment;

- To express its views and recommendations regarding other matters related to the funds' investment policies, taking into account the principles, objectives and rules that govern the funds.

In order to promote transparency, the Financial Committee decided that the decree regulating its activities, the minutes of its meetings and the corresponding press releases should be publicly disclosed. The Ministry of Finance's website thus includes a special section containing all information on these issues.[5]

BOX 1: Portfolio benchmarks

Portfolio benchmarks are representative market indexes for the different asset classes. In principle, they represent the passive investment performance of diversified portfolios invested in certain asset classes, where the return of each instrument is typically weighted by its relative share of market capitalization. The indexes are used as a reference for measuring the performance of the managers in charge of investing the funds.

Each asset class in an investment portfolio is associated with a benchmark. The benchmark for the total portfolio is thus constructed by weighting the selected indexes by the percentage allocation of each class, as defined in the investment policy.

Both the ESSF and the PRF have passive investment policies. That is, their investment strategy aims to achieve the benchmark return.

5 www.hacienda.cl/english/sovereign-wealth-funds.html.

D. Investment policy

To support the competitiveness of the Chilean economy, the ESSF and the PRF are invested exclusively in foreign currency instruments, in accordance with the investment policy outlined in this section.

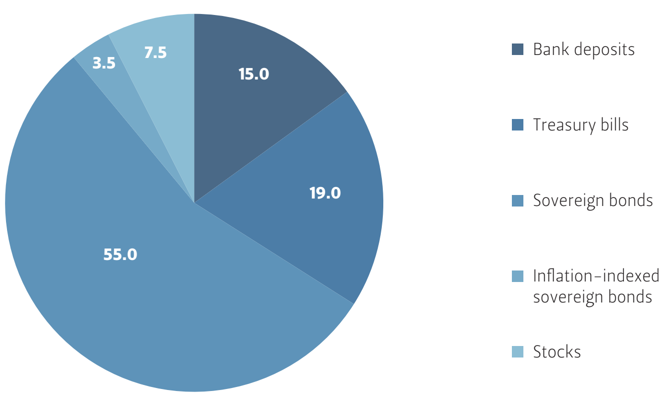
Economic and Social Stabilization Fund

In line with the objectives described above, the main goal of the ESSF investment policy is to maximize the fund's accumulated value in order to partially cover cyclical reductions in fiscal revenues while maintaining a low level of risk. Its aversion to risk is reflected in the choice of an investment portfolio with a high level of liquidity and low credit risk and volatility, thereby ensuring the availability of the resources to cover fiscal deficits and avoiding significant losses in the fund's value.

From its inception through July 2013, the ESSF investment policy centered on investment in fixed-income instruments denominated in reserve currencies, which typically perform well in times of crisis. However, a new investment policy was implemented in August 2013, which was defined by the Ministry of Finance on the basis of the Financial Committee's recommendations in 2012.[6] This investment policy establishes a portfolio allocation of 15% in bank deposits, 74% in sovereign bills and bonds, 3.5% in inflation-indexed sovereign bonds and 7.5% in stocks (see *Figure 2*). For the fixed-income portfolio, the currency allocation is defined as 40% in U.S. dollars (USD), 25% in euros (EUR), 20% in yen (JPY) and 7.5% in Swiss francs (CHF), expressed as a percentage of the total portfolio. The new policy also increases the duration of the fixed-income portfolio to approximately 4.8 years (see *Box 2*).

FIGURE 2

ESSF: Strategic asset allocation
(percent of portfolio)



SOURCE: Ministry of Finance of Chile

6 The Financial Committee's recommendation was founded on the review and analysis of different sources, including Eduardo Walker's study on portfolio allocation commissioned by the Ministry of Finance, comments on the study contained in three external peer reviews and additional simulations using market data from the last 20 years, carried out by the Ministry of Finance's International Finance team. For more information, see Chapter 3 of the Financial Committee's 2012 Annual Report.

BOX 2: Main elements of the Economic and Social Stabilization Fund (ESSF) investment policy

Investment objectives: Consistent with the ESSF objectives, the investment policy aims to maximize the fund's accumulated value in order to partially cover cyclical reductions in fiscal revenues while maintaining a low level of risk. Its aversion to risk is reflected in the choice of an investment portfolio with a high level of liquidity and low credit risk and volatility, thereby ensuring the availability of the resources to cover fiscal deficits and avoiding significant losses in the fund's value.

Strategic asset allocation: The ESSF investment policy stipulates a strategic asset allocation of 15% in bank deposits, 74% in sovereign bills and bonds, 3.5% in inflation-indexed sovereign bonds and 7.5% in stocks. The fixed-income portfolio has a currency allocation of 40% in USD, 25% in EUR, 20% in JPY and 7.5% in CHF, expressed as a percentage of the total portfolio.

Portfolio benchmarks: A benchmark has been defined for each component of the strategic asset allocation, using a representative market index:

Asset class		Percent of portfolio	Benchmark
1. Bank deposits		5.0	Merrill Lynch LIBID 3 Month Average USD
		6.0	Merrill Lynch LIBID 3 Month Average EUR
		4.0	Merrill Lynch LIBID 3 Month Average JPY
		15.0	**Subtotal bank deposits**
2. Treasury bills and sovereign bonds	2.1. Treasury bills	6.0	Merrill Lynch Treasury Bills Index USD
		7.0	Merrill Lynch Treasury Bills Index EUR
		6.0	Merrill Lynch Treasury Bills Index JPY
		19.0	**Subtotal Treasury bills**
	2.2. Sovereign bonds	26.5	Barclays Capital Global Treasury: U.S. 7-10 Yrs
		11.0	Barclays Capital Global Treasury: Germany 7-10 Yrs
		10.0	Barclays Capital Global Treasury: Japan 7-10 Yrs
		7.5	Barclays Capital Global Treasury: Switzerland 5-10 Yrs
		55.0	**Subtotal sovereign bonds**
		74.0	**Subtotal Treasury bills and sovereign bonds**
3. Inflation-indexed sovereign bonds		2.5	Barclays Capital Global Inflation-Linked: U.S. TIPS 1-10 Yrs
		1.0	Barclays Capital Global Inflation-Linked: Germany 1-10 Yrs
		3.5	**Subtotal inflation-indexed sovereign bonds**
4. Stocks		**7.5**	**MSCI All Country World Index ex Chile (unhedged with reinvested dividends)**

The ESSF has implemented a passive management strategy since May 2011, allowing only marginal deviations from the strategic asset allocation.

Management: The ESSF is largely managed by the CBC, which, acting as fiscal agent, manages the fixed-income portfolio (92.5% of total assets). The stocks portfolio is managed by external management companies contracted by the CBC following a tender process.

Ex ante tracking error[1]: The ex ante tracking error is capped at 50 basis points for the fixed-income portfolio and 60 basis points for the stocks portfolio.

Eligible currencies and issuers: Only currencies in the benchmark are eligible for investment. In the case of sovereign exposure, the issuers that make up the corresponding benchmark, supranational institutions, agencies and eligible entities with an explicit government guarantee according the elegibility criterias used by the CBC in order to invest the internacional reserves and according the pre-established limits set in the investment guidelines. With regard to bank exposure, the fund can only be invested in banks with a risk rating of A-/A3 or higher (Standard & Poor's, Moody's and Fitch) and in accordance with the limits stipulated in the investment guidelines. For exposure to stocks, only the issuers that make up the corresponding benchmark are eligible for investment, however the investment in exchange traded funds, mutual funds, American depositary receipts, global depositary receipts, and futures is also allowed.

Leveraging and the use of derivatives: Leveraging is not allowed.[2] The use of derivatives is defined according to the type of portfolio:

- Fixed-income portfolio: The use of forwards and swaps is only allowed for foreign currency hedging. The total notional amount cannot exceed 4% of the fixed-income portfolio.
- Stocks portfolio: The use of forwards and swaps is only allowed for foreign currency hedging. In addition, the use of stock futures is allowed for hedging purposes or to gain exposure to part of the benchmark. The aggregate nominal amount of the futures, forwards and swaps cannot exceed 10% of the portfolio of each external manager.

Rebalancing policy: The rebalancing policy consists in restoring the strategic allocation once a year and whenever the share of stocks exceeds the range of 5.5% to 9.5% of the total portfolio. The annual rebalancing is coordinated with fund contributions, to the extent possible.

Investment guidelines: The investment guidelines, which are published in Spanish and available online at the Ministry of Finance website[3]**,** provide additional information on the ESSF investment policy, such as special restriction on investment in specific countries and other relevant limits, as well as other aspects of portfolio management.

1 The ex ante tracking error is an estimate of the standard deviation of the difference between the portfolio and benchmark returns. The lower the ex ante tracking error, the more passive the portfolio management.

2 Leveraging is the purchase of assets through debt.

3 http://www.hacienda.cl/fondos-soberanos/fondo-de-estabilizacion-economica-y/politica-de-inversion.html

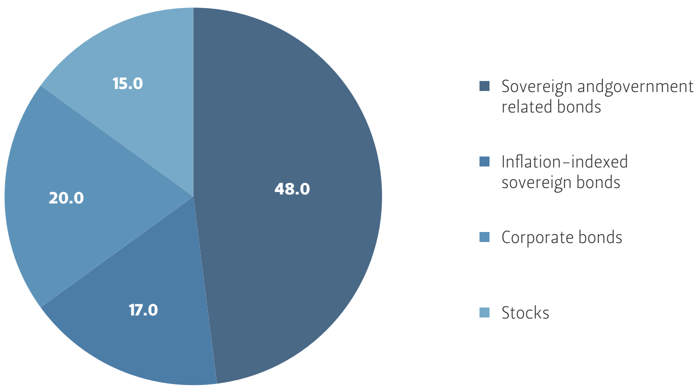
Pension Reserve Fund

The main objective of PRF investment is to generate resources for financing part of the government's pension liabilities. To achieve this, the investment policy incorporates the specific objective of maximizing expected returns while keeping risk within a 95% probability that the fund will not lose more than 10% of its value in dollars in a given year. The investment horizon is medium to long term, given the size and timeline of the liabilities that the fund has to finance.

The PRF investment policy was similar to that of the ESSF from its inception through year-end 2011; a new investment policy for the PRF was implemented in early 2012 (see Box 3). The new policy stipulates a portfolio allocation of 48% in sovereign and government related bonds, 17% in inflation-indexed sovereign bonds, 15% in stocks and 20% in corporate bonds (see *Figure 3*). The policy was defined by the Finance Minister based on recommendations by the Financial Committee in late 2010.[7]

FIGURE 3

PRF: Current strategic asset allocation
(percent of portfolio)



SOURCE: Ministry of Finance of Chile

BOX 3: Main elements of the Pension Reserve Fund (PRF) investment policy

Investment objectives: The investment objective of the PRF is to maximize the expected returns while keeping risk within a 95% probability that the fund will not lose more than 10% of its value in dollars in a given year. The investment horizon is medium to long term, given the size and timeline of the liabilities that the fund has to finance.

Strategic asset allocation: The current PRF investment policy, which was implemented in January 2012, stipulates a portfolio allocation of 48% in sovereign bonds, 17% in inflation-indexed sovereign bonds, 15% in stocks and 20% in corporate bonds. The previous investment policy only considered investments in sovereign fixed income and bank deposits.

Portfolio benchmarks: A benchmark has been defined for each component of the strategic asset allocation, using a representative market index.

7 The Financial Committee's recommendation was based on a study carried out by the Mercer consulting firm in 2008 (Strategic Assest Allocation Analysis), which is available online at http://www.hacienda.cl/english/sovereign-wealth-funds/relevant-studies.html.

Asset class	Percent of portfolio	Benchmarks
Sovereign and government-related bonds[(a)]	48	Barclays Capital Global Aggregate: Treasury Bond Index (unhedged)
		Barclays Capital Global Aggregate: Government-Related (unhedged)
Inflation-indexed sovereign bonds	17	Barclays Capital Global Inflation-Linked Index (unhedged)
Corporate bonds	20	Barclays Capital Global Aggregate: Corporates Bond Index (unhedged)
Stocks	15	MSCI All Country World Index ex Chile (unhedged with reinvested dividends)

(a) Each subindex of this asset class is added in accordance with its relative capitalization.

Management: The sovereign and government-related bonds and inflation-indexed sovereign bond portfolios are managed directly by the CBC, acting as fiscal agent. The stocks and corporate bond portfolios are managed by external management companies contracted by the CBC following a tender process.

Ex ante tracking error: The ex ante tracking error is capped at 50 basis points for the aggregate portfolio of sovereign and government-related bonds and inflation-indexed sovereign bonds; 60 basis points for the stocks portfolio; and 50 basis points for the corporate bond portfolio.

Eligible currencies and issuers: For each asset class, only currencies and issuers that make up the benchmark are eligible for investment. In the case of issuers, only those that make up the corresponding benchmark are allowed. However, for exposure to stocks, the investment in exchange traded funds, mutual funds, American depositary receipts, global depositary receipts, and futures is also permited.

Leveraging and the use of derivatives: Leveraging is not allowed. Derivatives use is differentiated by portfolio:

- Portfolio managed by the CBC: Forwards and swaps can only be contracted for foreign currency hedging. The nominal value of the forwards or swaps contracted with a given eligible counterparty cannot exceed 1% of the market value of the portfolio if the counterparty has a credit rating of at least AA- and 0.5% if it is between A- and A+. The notional amount of all current forward or swap contracts, in sum, can not exceed 4% of the portfolio managed by the Bank.
- Stocks and corporate bond portfolios: Each external manager can only contract forwards or swaps for foreign currency hedging, and stock or fixed-income futures for hedging purposes or to gain exposure to part of the benchmark. The nominal value of the forwards or swaps contracted by an external manager with a given eligible counterparty cannot exceed 1% of the market value of the portfolio managed by that external manager. The aggregate nominal amount of futures, forwards and swaps cannot exceed 10% of the portfolio managed by a given external manager.

Rebalancing policy: The rebalancing policy consists in restoring the strategic allocation whenever contributions are received by the fund and whenever any of the asset classes exceeds the following shares of the total portfolio: 45–51% for sovereign and government-related bonds, 14–20% for inflation-indexed sovereign bonds, 17–23% for corporate bonds and 12–18% for stocks.

Investment guidelines: The investment guidelines, which are published and available online at the Ministry of Finance website,[1] provide additional information on the PRF investment policy, such as the rebalancing policy, the permissible range of deviation, eligible instruments and other relevant limits, as well as other aspects of portfolio management.

1 http://www.hacienda.cl/fondos-soberanos/fondo-de-reserva-de-pensiones/politica-de-inversion.html.

CHAPTER 2

State of the Sovereign Wealth Funds

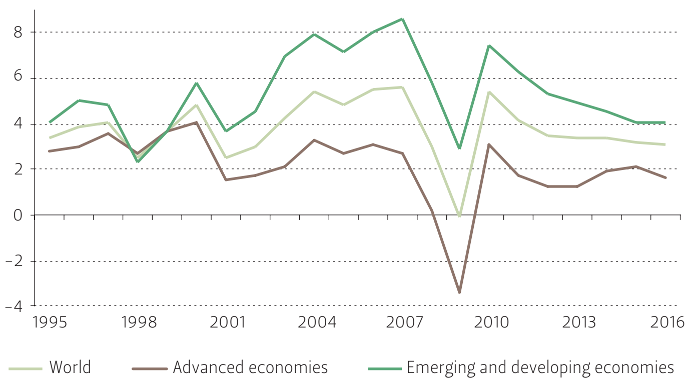
A. Market analysis

Main developments

According to estimates by the International Monetary Fund (IMF),[8] the gross domestic product (GDP) of the global economy grew at a rate of 3.1% in 2016, which is slightly lower than in 2015. Emerging and developing economies recorded a growth rate of around 4.1% in 2016, maintaining their 2015 rate. For the advanced economies, however, the expected growth rate decreased to approximately 1.6% (see *Figure 4*). Within this latter group, the United States, the Eurozone, and Japan are expected to grow below their 2015 rates (see *Figure 5*).

FIGURE 4

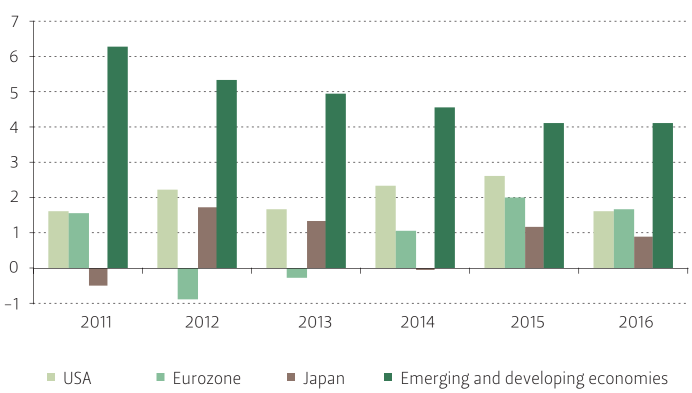
GDP growth, 1995–2016
(percent)



SOURCE: International Monetary Fund

FIGURE 5

GDP growth of selected economies, 2011–2016
(percent)



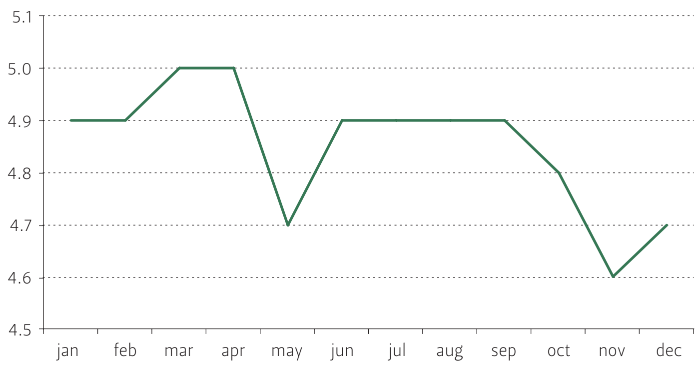
SOURCE: International Monetary Fund

8 Growth figures presented in this section are extracted from World Economic Outlook database (January updated version) from the IMF.

The U.S. economy grew 1.6% in 2016, although the third quarter was more dynamic, at 3.5%. Unemployment fell to 4.7%, approaching the levels recorded before the subprime crisis (see *Figure 6*). Hourly wages grew 2.9% relative to a year ago, the highest rate of the last seven years (see *Figure 7*). The general price index increased significantly in the second half of the year, settling around the annual target of 2% defined by the U.S. Federal Reserve (Fed), while core inflation, which excludes energy and food products, was relatively stable at around 2% annual throughout the period (see *Figure 8*). In this scenario, the Fed decided to increase the monetary policy rate (the Federal funds rate) by 25 basis points at its December meeting, to a range of 0.50–0.75%. This is the second increase since December 2015, when the Fed began normalizing U.S. monetary policy after maintaining an expansionary stance since 2006.

FIGURE 6

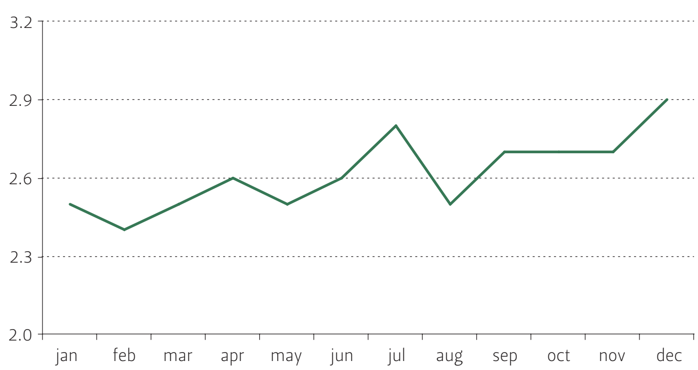
U.S. unemployment rate in 2016
(percent)



SOURCE: Bureau of Labor Statistics

FIGURE 7

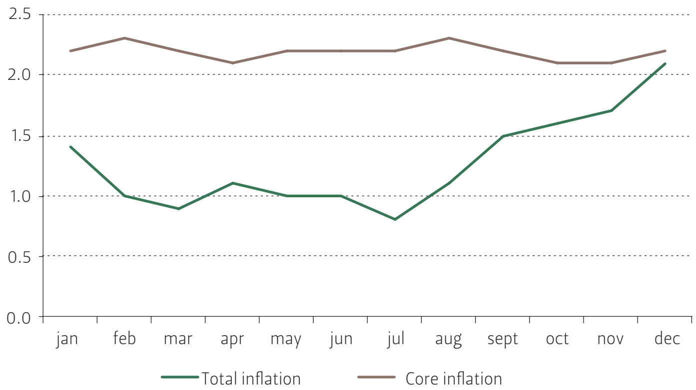
U.S. wage growth in 2016
(percent)



SOURCE: Bloomberg

FIGURE 8

U.S. consumer price index in 2016
(year-on-year change, in percent)

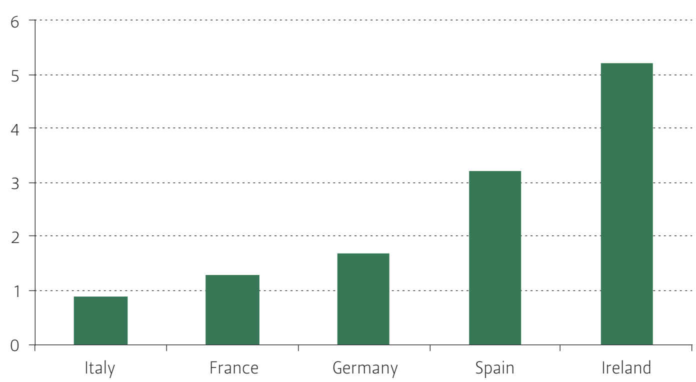


SOURCE: Bloomberg

Growth in the Eurozone was 1.7% in the year. Germany and France, the two largest economies in the European Union, recorded GDP growth of 1.7% and 1.3%, respectively, versus 0.9% in Italy, 3.2% in Spain, and 5.2% in Ireland (see *Figure 9*). Inflation in 2016 was below the 2% target set by the European Central Bank (ECB), although it rose in the second half (see *Figure 10*), while employment declined over the course of the period (see *Figure 11*). In this context, the ECB maintained its quantitative easing program and in April announced an increase in the size of its asset purchase program of up to 80 billion euros a month. This was reduced in December to 60 billion a month starting in April 2017, with an extension through December 2017 or until the price level aligns with the inflation target.

FIGURE 9

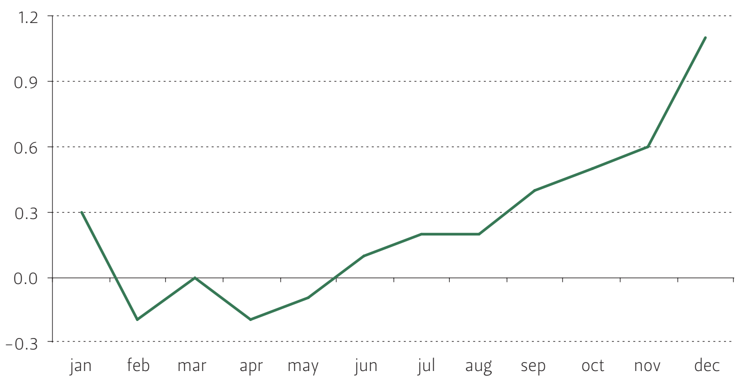
GDP growth in selected European economies in 2016
(percent)



SOURCE: International Monetary Fund

FIGURE 10

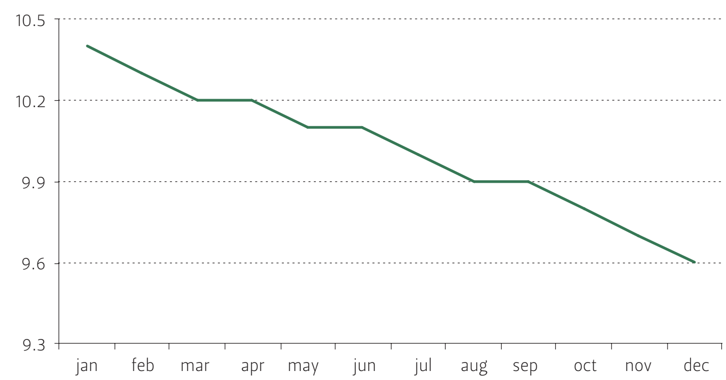
Annual inflation in the Eurozone in 2016
(percent)



SOURCE: Bloomberg

FIGURE 11

Unemployment rate in the Eurozone in 2016
(percent)



SOURCE: Bloomberg

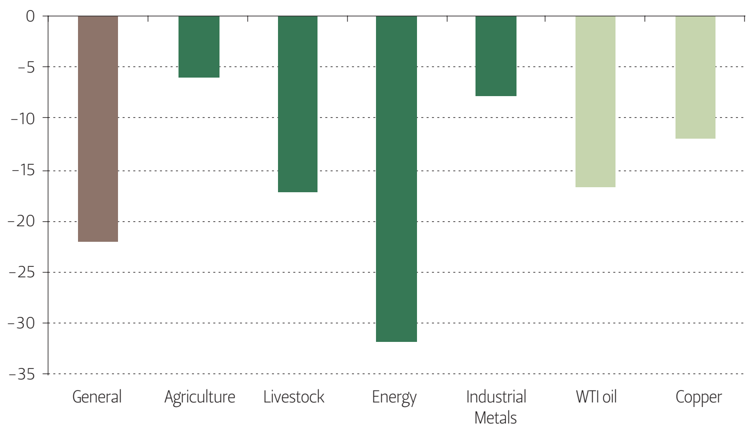
Japan grew 0.9% in 2016. In September, in order to bring inflation into the target range of around 2%, the Central Bank of Japan added yield curve control to its monetary stimulus plan. Specifically, the Bank committed to expanding the monetary base until annual CPI inflation exceeds the inflation target and to apply mechanisms that help control the interest rate level at both short and long terms. This includes the implementation of a Japanese ten-year sovereign bond purchase program, aimed at keeping the ten-year interest rate at 0%.

In China the economy continues to slow, recording growth of 6.7% at year-end 2016 versus 6.9% in 2015. Consequently, the government has maintained an expansionary fiscal policy aimed at stimulating the domestic economy. The People's Bank of China used the equivalent of US$320 billion of international reserves (around 10% of total reserves) to put a brake on the depreciation of its currency, the renminbi, which has been affected by the slow economy. Nevertheless, in October the IMF added the renminbi to the basket that makes up the Special Drawing Rights (SDR),[9] in acknowledgement of its importance in the global economy.

Average commodity prices fell in all sectors in 2016 versus 2015. The energy sector recorded the largest drop, -32%. The average copper price decreased around 12% relative to a year ago, which is highly relevant for the Chilean economy. Oil prices declined around 17%, on average, in 2016 (see *Figure 12*).

FIGURE 12

Standard & Poor's commodity indexes, WTI oil, and copper year on year change in 2016 (percent)



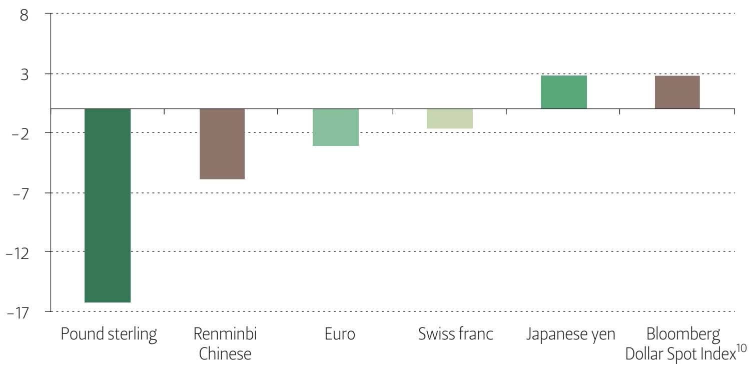
SOURCE: Bloomberg

In this global context, the U.S. dollar strengthened against the main world currencies. Of the currencies in the sovereign wealth funds' investment portfolios, the pound sterling depreciated the most in the year (16.2%), mainly after the referendum on the United kingdom's exit from the European Union (see *Figure 13*).

9 The value of one SDR is based on a basket of five currencies: U.S. dollar, 41.73%; euro, 30.93%; Japanese yen, 8.33%; pound sterling, 8.09%; and Chinese renminbi, 10.92%.

FIGURE 13

Currency movements against the dollar in 2016, selected currencies
(percent)

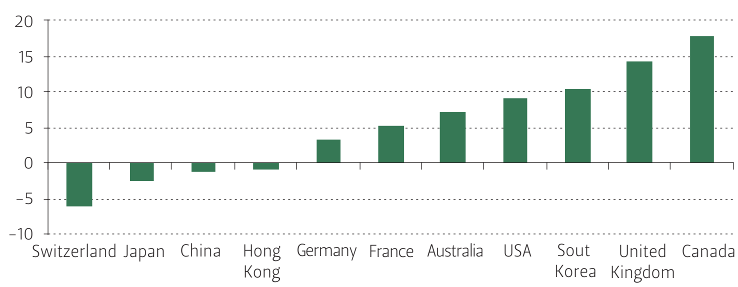


SOURCE: Bloomberg

With regard to the financial markets, several stock exchanges increased significantly in 2016. For a selected sample (see *Figure 14*), the stock markets with the worst performance in the period were Switzerland and Japan, whose returns in local currency were -5.9% and -2.6% respectively. In contrast, Canada and the United Kingdom posted the highest yields, at 17.6% and 14.3%, respectively.

FIGURE 14

MSCI equity index yields in 2016, selected countries
(percent, measured in local currency)



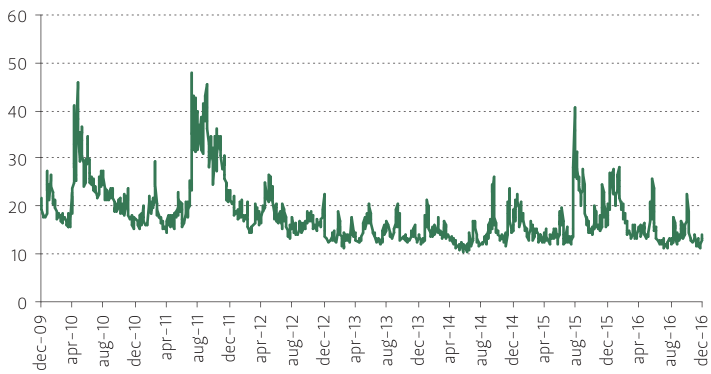
SOURCE: Bloomberg

Stock market volatility (S&P 500), measured through the VIX Index, was slightly lower on average in 2016 than in 2015. The index peaked in February, when uncertainty about China's growth capacity coincided with the lowest oil price of the period (see *Figure 15*).

10 The Bloomberg Dollar Spot Index is a tradable index that shows the value of the dollar relative to the world's ten main currencies. Index yields above zero indicate dollar appreciation against the basket of currencies, while negative yields indicate dollar depreciation against the basket.

FIGURE 15

Volatility (VIX) in the S&P 500, 2009–2016
(level)

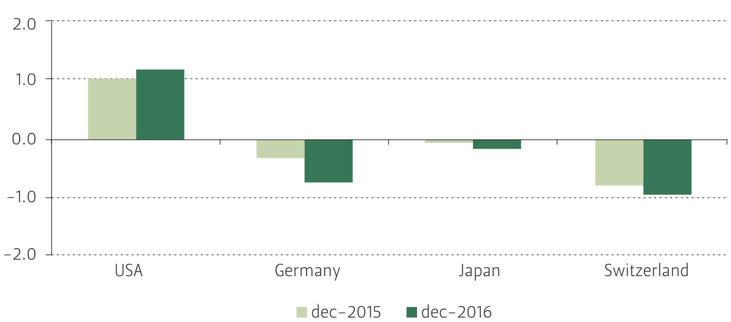


SOURCE: Bloomberg

Both two- and ten-year sovereign interest rates fell relative to 2015 in Germany, Japan, and Switzerland, but increased in the United States (see *Figures 16 and 17*). The first three countries continued to record negative annual two-year rates in the period under analysis.

FIGURE 16

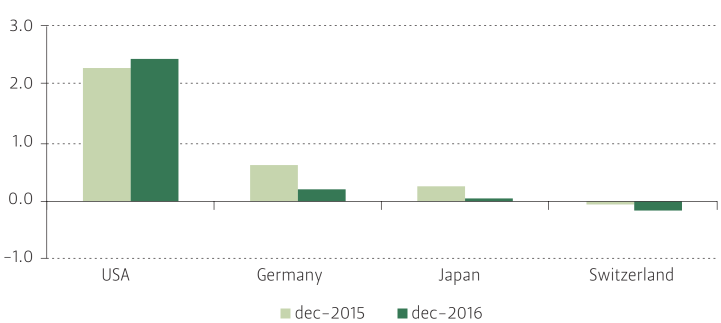
Internal rate of return (IRR) on two-year sovereign bonds in 2016, selected countries
(percent)



SOURCE: Bloomberg

FIGURE 17

IRR on ten-year sovereign bonds in 2016, selected countries
(percent)

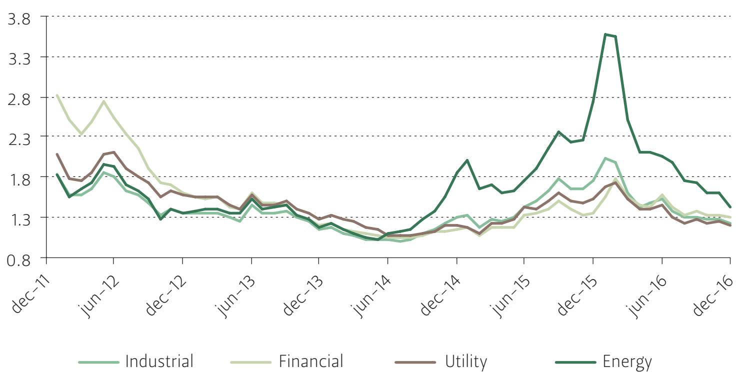


SOURCE: Bloomberg

In the corporate market, spreads narrowed in all sectors of the Bloomberg Barclays Global Aggregate Corporate Index in 2016, vis-à-vis year-end 2015.[11] Thus, industrial, financial, and utility sector spreads decreased 30%, 5%, and 20%, respectively. In the industrial sector, the energy subsector fell 48% relative to year-end 2015 (see *Figure 18*).[12]

FIGURE 18

Corporate spreads by industry, 2011–2016
(percent)



SOURCE: Barclays

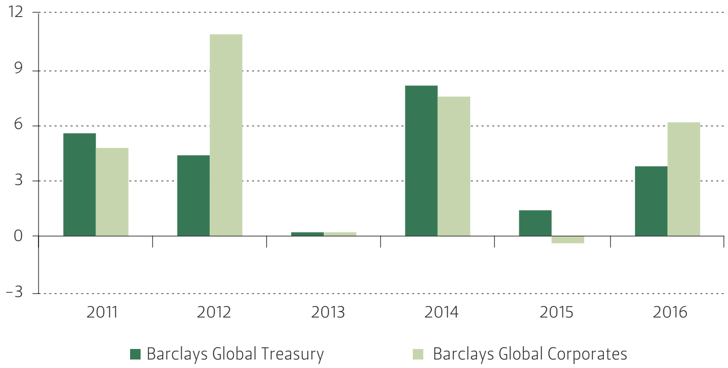
In 2016, corporate and sovereign bond yields in currency of origin were positive in almost all the countries in which the sovereign wealth funds are invested. The Barclays Capital Global Aggregate: Treasury Bond Index (hedged) and the Barclays Capital Global Aggregate: Corporate Bond Index (hedged) closed the year with yields of 3.86% and 6.22%, respectively (see *Figure 19*).

11 The Bloomberg Barclays Global Aggregate Corporate Index is constructed on the basis of global investment-grade fixed-income corporate bonds. It comprises a set of 54 countries, including both developed and developing economies. The index can be subdivided into three sectors: industrial, financial, and utility sectors. At year-end 2016 the index had 10,076 shares, distributed as follows: 54% industrial, 35% financial, and 11% utility sectors.

12 The Industrial sector includes raw materials, capital gooods, communications, cyclical consumer goods, noncyclical consumer goods, energy, technology, transport, and so forth.

FIGURE 19

Return on Barclays Global Treasury and Global Corporate indexes (hedged), 2011 – 2016
(percent, measured in local currency)



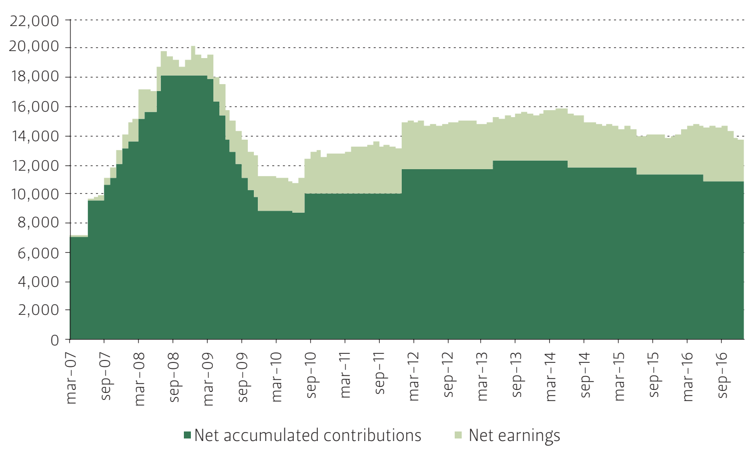
SOURCE: Barclays

B. Market value

At the close of 2016, the market value of the ESSF was US$ 13,772 million, versus US$ 13,966 million at year-end 2015, while the PRF had a market value of US$ 8,862 million, versus US$ 8,112 million in 2015. The decrease in the ESSF was due to a withdrawal of US$ 462 million to finance the annual contribution to the PRF, which was partially offset by net investment gains of US$ 268 million (see *Figure 20*). The PRF, in turn, received the contribution of US$ 462 million and also recorded net gains of US$ 288 million (see *Figure 21*).

FIGURE 20

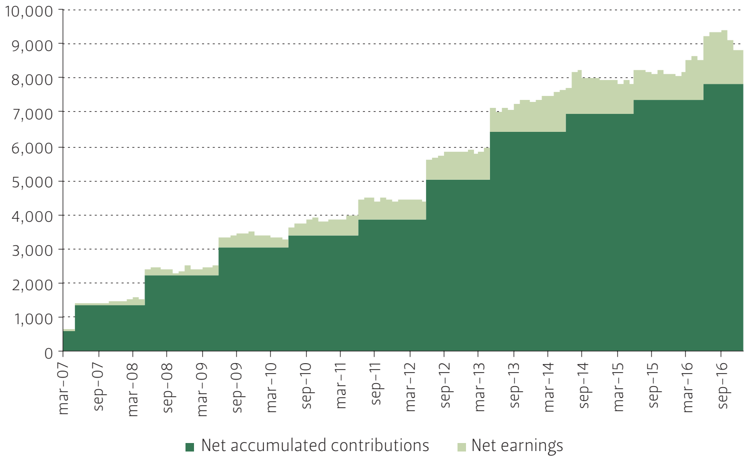
ESSF: Market value, March 2007 to December 2016
(millions of dollars)



SOURCE: Ministry of Finance of Chile

FIGURE 21

PRF: Market value, March 2007 to December 2016
(millions of dollars)



SOURCE: Ministry of Finance of Chile

C. Returns

In 2016, the net return in dollars (see *Box 4*), measured by the time-weighted rate of return (TWR), was 1.74% in the ESSF and 3.76% in the PRF (see *Table 1*). Using the internal rate of return (IRR), the yield was 1.96% for the ESSF and 3.47% for the PRF.

For the ESSF, the positive return breaks down into a 1.15% return on the fixed-income portfolio and an 8.27% return on the stocks portfolio. The fixed-income return is the sum of 1.38% yields on instruments in local currency and -0.23% due to exchange rate fluctuations against the dollar of the currencies in which these instruments are denominated.

In the case of the PRF, the return in dollars is mainly explained by the positive returns on all asset classes. In fixed income, the returns were 1.64% for sovereign and government related bonds, 4.16% for inflation-indexed bonds, and 4.31% for corporate bonds. As in the ESSF, the PRF stock portfolio, yielded 8.29% in the year.

TABLE 1

ESSF and PRF: Determinants of returns (TWR) in dollars, 2016
(percent)

Fund	Component	Quarter				2016
		I	II	III	IV	
ESSF	Fixed-income[(a)]	5.61	2.63	0.44	-7.09	1.15
	Local currency	2.39	1.37	-0.19	-2.20	1.38
	Exchange rate fluctuations	3.21	1.26	0.64	-4.88	-0.23
	Stocks	0.35	1.12	5.40	1.22	8.27
	Total return (USD)	**5.23**	**2.52**	**0.80**	**-6.45**	**1.74**
	Total return (CLP)	0.68	0.50	0.44	-5.20	-3.92
PRF	Sovereign and government related bonds	6.86	3.58	0.68	-8.79	1.64
	Inflation-indexed bonds	4.71	1.59	3.28	-5.20	4.16
	Corporate bonds	4.75	2.03	1.93	-4.25	4.31
	Stocks	0.37	1.14	5.39	1.22	8.29
	Total return (USD)	**5.15**	**2.59**	**2.06**	**-5.75**	**3.76**
	Total return (CLP)	0.59	0.58	1.70	-4.51	-1.90

(a) For the ESSF fixed-income portfolio, the table presents an estimate of the return in local currency and the return deriving from exchange rate fluctuations affecting the portfolio. The impact of exchange rate fluctuations is approximated and calculated using the benchmark currency allocation, taking into account that the ESSF is invested under a passive mandate. The return in local currency is calculated by subtracting that estimate from the fixed-income return.

SOURCE: Ministry of Finance of Chile

Returns in Chilean pesos depend on the peso-dollar exchange rate: the value of the portfolio expressed in pesos increases (decreases) when the peso depreciates (appreciates) against the dollar. In 2016, the peso appreciated against the dollar, which explains the lower returns in national currency of -3.92% in the ESSF and -1.90% in the PRF.

BOX 4: Factors affecting returns in the sovereign wealth funds

The investment returns in the sovereign wealth funds depends on a number of factors that affect the different types of instruments included in each of the fund portfolios.

For the fixed-income portfolios, the main factors are interest rate levels, the credit quality of the issuers, and exchange rate movements. Market interest rates directly affect the interest rate offered on time deposits in financial institutions and sovereign debt securities at issuance. Changes in interest rates further affect the price of fixed-income instruments that are traded in the secondary market, especially for medium –and long– term securities, where an increase has a negative effect and a decrease has a positive effect. The issuer's credit quality further affects the price at which a fixed-income instrument is traded in the market: a deterioration in credit quality will cause a reduction in the price; an improvement, an increase.[1] Finally, because the funds' performance is measured in dollars while a large share of the portfolio is invested in instruments denominated in other currencies, exchange rate movements against the dollar have an effect on returns.

For the stocks portfolios, returns will largely depend on the market's perception of the issuing corporation's income generation capacity and the risks associated with the company, as well as market financial conditions.

1 In the case of corporate bonds, credit quality is generally measured through the spread, that is, the difference between the bond's interest rate and the benchmark sovereign interest rate. An increase (decrease) in the spread on a corporate bond is associated with a reduction (increase) in the bond's value.

Since the inception of the funds, the annual return in dollars as of year-end 2016 was 2.24% for the ESSF and 3.20% for the PRF. Expressed in Chilean pesos, the annual return for this full period was de 4.45% for the ESSF and 5.41% for the PRF.

In 2016, the returns on both funds were 3 basis points higher than their benchmarks. Since 31 March 2007, the difference between the average annual return of the ESSF and PRF and their benchmarks was -7 basis points and -30 basis points, respectively.[13]

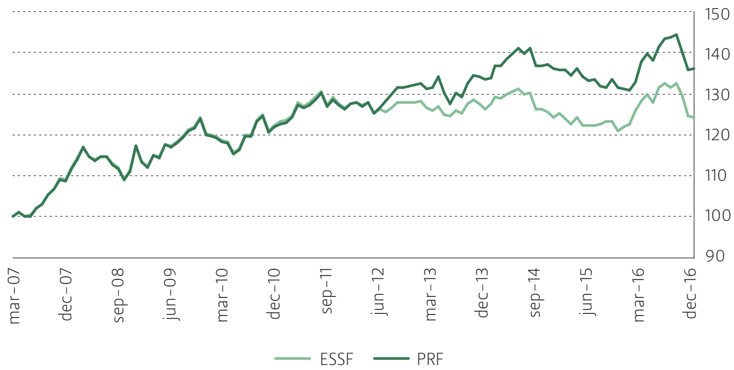
Figure 22 shows the evolution of the index of accumulated returns for each fund. For the ESSF, the index increased 24.1% between 31 March 2007 and year-end 2016; for the PRF, the increase was 36.0% in the same period. The figure illustrates how the evolution of the two funds' returns began to differentiate in 2012, when the PRF investment policy was changed. The higher return of the PRF, relative to the ESSF, is mainly due to the strong performance of the asset classes that were incorporated into the PRF in early 2012, in particular stocks and corporate bonds, which have recorded annualized returns of around 9.6% and 2.9%, respectively.[14]

13 This means that the manager's portfolio generated lower returns, on average, than the implicit benchmark portfolio in the full period (2007–2016).

14 Although the ESSF also invests in stocks, they were only incorporated in August 2013 and represent 7.5% of the total portfolio, versus 15% in the PRF.

FIGURE 22

ESSF and PRF: Accumulated returns index, in dollars
(31 March 2007 = 100)



SOURCE: Ministry of Finance of Chile

CHAPTER 3

Activities and Recommendations of the Financial Committee

A. Review on the PRF investment policy

The Financial Committee was involved in various activities related to the review on the PRF investment policy initiated in the last quarter of 2016, including participation in the process of selecting the consultant to head up the review, the discussion and recommendation of the universe of eligible asset classes, and the review of the first report.

Consultant selection process

In 2015, the Financial Committee recommended contracting an international consultant to review the long-term investment policy of the PRF, taking into account that the main elements of the current policy were defined in late 2007.[15]

The Finance Ministry carried out a selection process that involved sending out a request for proposals, with the approval of the Committee, to eleven firms: AON Hewitt Investment Consulting, Callan Associates, Meketa Investment Group, Mercer Investment Consulting, Wilshire, NEPC, R.V. Kuhns, Russell Investments, Segal Rogerscasey, Willis Towers Watson, and Pension Consulting Alliance. Of the invited firms, the first five showed interest and submitted proposals (see *Box 5*). The responses were evaluated by the Finance Ministry, based on factors such as experience, methodological approach, willingness to provide a financial model, quality of the proposal, and fees. The process came to a close in early July with the selection of Mercer Investment Consulting, whose proposal best addressed the needs of the study. The Financial Committee was in agreement with the result of the selection process executed by the Financial Ministry.

BOX 5: The main deliverables of the review of the PRF investment policy

Mercer Investment Consulting (Mercer) will carry out the review in distinct phases, according to a timeline defined in advance by the Finance Ministry. In the first three phases, the consulting firm will prepare a report whose contents, conclusions, and recommendations will be presented by the consulting team directly to the Financial Committee, after a review by the Finance Ministry.

The report on the first phase was submitted and discussed by the Financial Committee and the Finance Ministry at the December 2016 meeting. It included a general description of the experience of other international funds with similar characteristics to the PRF, a discussion and recommendation on how to define the fund's investment objective, and a listing of the asset classes that will be considered in the review. It also described the theoretical framework that Mercer will use to define the strategic asset allocation in each phase.

In the second phase, to be completed in the first quarter of 2017, Mercer will submit a second report that will include recommendations on the strategic asset allocation of the PRF based on different risk indicators and tolerance. It will also contain

15 For additional information see Financial Committee Annual Report 2007.

simulations of the recommended portfolios' behavior, considerations for the construction of the portfolio,[1] and a draft of the investment policy statement.

In the third phase, the consultant will prepare a final report incorporating the contents of the first two reports and any comments received from the Finance Ministry and the Financial Committee. The final report must be submitted in the second quarter of 2017.

Finally, Mercer will train the Finance Ministry's team on the theoretical framework and submit a simplified version of the model, so that the Ministry can carry out future analysis and updates. This activity will also take place in the second quarter of 2017.

Once the review is completed, the Committee will evaluate Mercer's proposals and decide whether to recommend changes in the PRF investment policy to the Minister of Finance.

1 For example, the number of managers that should be contracted for each asset class, the use of passive or active investment mandates, and the inclusion of responsible investment practices.

Asset classes for the PRF study

Prior to the review on the PRF investment policy, the Financial Committee analyzed the main characteristics of the asset classes typically used by other long-term investors, with the objective of proposing a set of them to the consultant for consideration in the review. For this exercise, the Finance Ministry prepared a report describing the main characteristics of both the traditional asset classes and alternative investments.[16] Based on that information, the Financial Committee members all made suggestions on which asset class should be incorporated into the PRF investment policy review. The Committee recommended that the results be shared with the consultant.

Review of the first report

Mercer presented its first report to the Financial Committee at the December 2016 meeting. The report include the following:

- A general description of the main characteristics of other institutional investors to provide a point of reference for the PRF, comparing factors such as the size of the fund, its strategic asset allocation, how the investment objectives had been defined, the percentage invested domestically versus overseas, the distribution between active and passive investment, the incorporation of responsible investment, and so forth;
- A recommendation on how to define the fund's investment objective, including risk tolerance, and on the reference currency that should be used for measuring performance; and

16 Alternative investments are investments in infrastructure, real estate, private capital, hedge funds, commodities, and so forth.

- A description of the theoretical framework that would be used to model the different asset classes, project the contributions to and withdrawals from the fund, and achieve the strategic asset allocation.

After the first report was submitted, the Financial Committee made the following recommendations:

a. Accepted Mercer's recommendation to define a PRF investment policy associated with a real return in pesos;

b. Recommended that the analysis of the strategic asset allocation be carried out in real terms;

c. Agreed with the universe of asset classes to be used in the optimization model recommended by Mercer (stocks, sovereign bonds, inflation-indexed sovereign bonds, corporate bonds, high-yield bonds, agency mortgage-backed securities, infrastructure funds, and real estate funds), but asked that additional information be provided on the investment vehicles, the required institutional structure, and the associated costs of investing in new asset classes, in particular in infrastructure and the real estate sector;

d. Recommended that Mercer's proposals include what they consider to be the optimal portfolios, from the perspective of risk and return, and information for understanding the risks involved in each option; and

e. Asked Mercer to run a test comparing the returns that would be obtained under the current strategic allocation of the PRF versus the allocation recommended in the study.

B. Expansion of the securities lending program

The Financial Committee recommended including the ESSF and PRF stocks portfolios in their respective securities lending programs (see *Box 6*). The current program involves lending sovereign fixed-income securities in dollars and euros, while receiving high-credit-quality instruments in the same currencies as collateral (U.S. government or government-backed agency securities for dollar loans; European government securities with a rating of AA- or higher for euro loans). The Committee recommended that the stock lending program accept the same type of collateral as for sovereign fixed-income instruments in dollars. This recommendation was based on an analysis of the potential risks and benefits of including this asset class in the lending program and the different implementation channels. The results of this analysis showed that stocks lending would be more profitable than the current fixed-income program. Therefore, the inclusion of stocks in the lending program would make it possible to earn a similar level of income as under the current fixed-income program while lending out a smaller share of the portfolio, thereby reducing credit exposure. To avoid lending out significant shares, the Committee also recommended establishing a lending cap at 50% of the market value of the lendable portfolio for the fixed-income and stocks portfolios.

As of the date of publication of this Annual Report, this recommendation has not yet been implemented, as the definition of the monitoring and control mechanisms is still in progress.

BOX 6: Securities custody and the securities lending program

The securities custodian is the institution responsible for safekeeping an investor's financial assets. The custodian's main role is to hold and protect the securities that have been entrusted to the institution, and to return the assets when the owner so requires. The custodian is also charged with facilitating securities transfers related to sale and purchase instructions issued by the investor and enforcing all rights associated with the securities, such as collecting interest or dividend payments. The custodian may also represent the investor at shareholder or bondholder meetings.

To maximize the return on their resources, many investors use securities lending programs, a service typically offered by custodians. In a securities lending program, the custodian, acting in the name of the owner of the securities in question, loans the instruments held in custody to a third party (the counterparty). These loans are usually guaranteed by the counterparty through the delivery of cash or other financial instruments that are held as collateral. The custodian often provides a second guarantee, as well. When financial instruments are used as collateral, the counterparty is obligated to pay a fee to the owner of the loaned securities, through the custodian, and to return the borrowed securities when requested or at the end of the established loan period. When the collateral is cash, the securities owner invests the money to generate income, through the custodian, and must pay interest to the counterparty on the cash received as collateral. In both cases, the custodian receives part of the earnings as compensation for managing the program.

In the case of the Chilean funds, the custodian is J.P. Morgan Chase Bank N.A., and the securities lending program only accepts fixed-income financial instruments as collateral.

C. Review of the ESSF investment policy

The Financial Committee examined the methodology used in the study of the ESSF investment policy carried out by Professor Eduardo Walker in 2011. Specifically, the Committee analyzed the theoretical framework, the main conclusions, and the additional simulation results conducted by the Finance Ministry at the Committee's request. The changes introduced to the ESSF strategic asset allocation in 2013 were based on this study.

The Committee then asked the Finance Ministry to update the study so as to assess whether the results still hold. The Committee concluded that when the data series was extended through 2015,[17] using the same model as the original study, the results were largely consistent with the earlier findings.

The objective of this review was to ensure that all Financial Committee members were fully briefed on the fundamentals used to define the investment policies of the two sovereign wealth funds.[18]

17 The original study was carried out using data from 1990 to 2009.

18 In the case of the PRF, the study on which the investment policy is based —which was carried out by Mercer in 2008— was reviewed at the October 2015 meeting.

D. PRF sustainability study

As in years past, the Financial Committee participated in developing the PRF sustainability study, which must be conducted every three years in accordance with Fiscal Responsibility Law. The study is the responsibility of the Budget Office (Dipres), which, following a tender process, awarded the project to a consultant team comprising Pablo Castañeda, Rubén Castro, Eduardo Fajnzylber, Juan Pablo Medina, and Félix Villatoro.

This year, the Committee members met with the consultant team during an intermediate phase of the study. Together, they analyzed the methodology used and the preliminary results, and the Committee asked questions on the assumptions underlying some of the scenarios and recommended some changes that were incorporated into the final study.[19]

Once the study was completed, the Financial Committee analyzed the main conclusions, which included the following:

- The PRF will follow a growth trend over the next 20 years, as the minimum contributions (0.2% of GDP, as stipulated in the Fiscal Responsibility Law) are greater than the maximum withdrawals allowed for the PRF.
- With regard to the sustainability of the PRF, the study concluded that once the limit of UF 900 million has been reached,[20] that size would be sufficient to cover all associated obligations in a period of 20 years, but it would not be enough if the goal is to maintain its real value in perpetuity.

The Committee stressed the importance of the results in that they show that the PRF would change little in real terms in the next twenty years. Nevertheless, significant changes in the Solidarity Pillar could affect the sustainability of the PRF in the future.[21]

E. Evaluation of the incorporation of responsible investment policies

In late 2016, the Financial Committee examined general aspects of responsible investment, which takes into account environmental, social, and governance (ESG) factors[22] in investment decisions. The Committee analyzed the experience of other sovereign wealth funds in this area, assessing in particular the practices used by the Government Pension Fund of Norway and the New Zealand Superannuation Fund. The Committee also reviewed the international standards and principles commonly used by investors and different implementation alternatives for integrating ESG factors into the funds' investment strategies and processes. Based on this analysis, the Committee asked the Technical Secretariat to draft a proposal in the first quarter of 2017, outlining the possibilities for implementing responsible investment practices in the Chilean sovereign wealth funds.

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19 Castañeda, P., R. Castro, E. Fajnzylber, J. Medina, and F. Villatoro (2016), "Estudio sobre la sustentabilidad del Fondo de Reserva de Pensiones." The report is available online at www.hacienda.cl/fondos-soberanos/estudios-relevantes.html.

20 The Fiscal Responsibility Law establishes that once that amount is reached, the PRF cannot receive any additional contributions.

21 After the study was completed, the government announced a 10% increase in the basic solidarity pension. Consequently, Dipres updated the main projections of the PRF sustainability study, concluding that the PRF is sustainable even under adverse scenarios in the medium term. Only in the event that the assumptions of an adverse scenario materialized every year in the future, in the long term (in a forecast horizon of over 50 years) there could be a risk for the PRF, conditional on withdrawing the largest quantity of resources possible. Source: Dirección de Presupuestos (2016), "Anexo técnico-estudio actuarial del FRP: Estimación de la evolución del FRP con crecimiento del valor de la PBS en 10%."

22 Environmental, Social, and Governance.

F. Monitoring of the sovereign wealth fund managers

Early in the year, the Financial Committee received delegations from the CBC and Mellon Capital Management Corporation, which are required to present an annual report on their portfolio management to the Committee and the Finance Ministry. The CBC described the main market developments, the performance of their portfolios in 2015, and their investment methodologies; and also discussed the results of their assessment of the custodian banks used for the Bank's international reserves. The latter discussion was in response to the concerns of the Finance Ministry and the Financial Committee with regard to the risks associated with the custodian banks. Mellon Capital Management Corporation also reviewed the main market events of 2015, the composition and performance of their portfolios, their investment strategies, and some investment trends among institutional investors. These presentations are among the reporting requirements imposed on the external fund managers.

G. ESSF and PRF rebalancing policy

The ESSF and PRF investment policies indicate that the funds must be rebalanced to converge to their strategic allocation if the share of a given asset class exceeds the permissible deviation (se *Boxes 2 and 3*). However, this rule does not establish the precise timing of the rebalancing once a given limit has been exceeded. Taking this into account, the Financial Committee recommended that a fund should be rebalanced if an asset class exceeds its permissible deviation for three consecutive business days. Once the rebalancing order has been triggered, it must be carried out as quickly as possible, subject to any operational restrictions that must be considered.

APPENDIX **SUMMARY OF MEETINGS IN 2016**

MEETING 1 | 14 JANUARY

At its first meeting of the year, the Committee concluded the series of annual presentations by the investment managers of the ESSF and PRF funds, namely, the Central Bank of Chile and Mellon Capital Management Corporation. The Central Bank described its investment processes, portfolio composition, and performance in 2015. The Bank also summarized the findings of an internal assessment of the custodian banks used for its international reserve program, given that the results are also applicable to the sovereign wealth funds. Mellon Capital Management Corporation gave a brief presentation on the company and introduced their team, who then outlined their investment processes and portfolio performance, including an attribution analysis. They also reviewed the market and talked about some new investment trends. The Committee thanked the representatives of both fund managers for their presentations and expressed satisfaction with their work. Subsequently, the Committee discussed the terms of reference to be included in the request for proposal being prepared by the Ministry, for contracting an international consultant to review the PRF investment policy. Finally, the Committee briefly reviewed some issues related to the expansion of the securities lending program and the contents of the Financial Committee's 2015 Annual Report.

MEETING 2 | 7 MARCH

The Committee reviewed the conceptual framework of the study carried out by Eduardo Walker, which was the basis for the changes to the ESSF investment policy in 2013. The objective of this review was to ensure that all the Committee members had an in-depth understanding of the fundamentals used to define the investment policies of both sovereign wealth funds. The Committee members also analyzed and debated the main characteristics of the universe of asset classes that are typically used by long-term investors, which might be considered as possible investment alternatives by the external consultant that was being contracted in 2016 to carry out a review of the PRF investment policy. Finally, the Committee discussed the existing rebalancing policy of each fund, recommending that the fund be rebalanced if the permissible deviation was exceeded for three consecutive business days.

MEETING 3 | 2 MAY

The Committee analyzed the preliminary results of the PRF sustainability study, which must be conducted every three years in accordance with the current legislation. The study was carried out by Pablo Castañeda, Rubén Castro, Eduardo Fajnzylber, Juan Pablo Medina, and Félix Villatoro. This team of consultants was chosen by the Budget Office following a request for proposals issued in late 2015. At the Financial Committee meeting, the team presented several long-term projections for the PRF, together with the underlying assumptions, scenarios, and forecast models. The Committee members raised questions on the assumptions underlying some of the scenarios and recommended some changes. After the discussion, the Committee thanked the team for the quality of their work and stressed its importance for the upcoming PRF investment policy review being coordinated by the Finance Ministry. Next, The Committee members analyzed the results of an internal consultation, with each member expressing an opinion on the asset classes the should be considered in the review of the PRF investment policy. The Committee recommended submitting the results of the consultation to the company that was contracted to carry out the review.

MEETING 4 | 6 JULY

At the July meeting, the Committee recommended contracting Mercer to undertake the review of the PRF investment policy, based on the selection process implemented by the Sovereign Wealth Funds Unit of the the Finance Ministry. Once the review was completed, the Committee would make a recommendation to the Finance Minister on whether or not to modify the fund's current investment policy. The Committee also reviewed the final conclusions of the PRF sustainability study, which would be used by Mercer in its analysis of the fund's investment policy. Subsequently, the Committee recommended expanding the securities lending program of the two sovereign wealth funds to incorporate stock lending, in addition to the current use of sovereign fixed-income instruments. At the same time, the Committee recommended setting a cap on the amount that could be loaned through the securities lending program.

MEETING 5 | 12 DECEMBER

The Committee received the Mercer team tasked with carrying out the review of the PRF investment policy, who presented their first report. This included a description of the experience of other international funds with similar characteristics to the PRF, different approaches for defining the fund's investment objective, and the theoretical framework that would be used for recommending a strategic asset allocation for the PRF. The Committee was in agreement with Mercer's main recommendations. The Committee also reviewed the general aspects in international experience on investment policies that take into account environmental, social, and governance (ESG) factors, known as responsible investment. After that, the Committee asked the Finance Ministry to draft a formal proposal in March 2017 on how these factors could be applied to the Chilean sovereign wealth funds. Finally, the Committee reviewed an updated version of Eduardo Walker's report an asset allocation for the ESSF, conducted by the Ministry, and found that the main conclusions had not changed significantly on incorporating the current data.

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Glossary

Active management — an investment strategy that seeks to obtain a higher return than a given benchmark.

Alternative investments — investments other than those traditionally used (equities and fixed-income); they mainly include private equity, venture capital, hedge funds, commodities and real estate.

American depositary receipts (ADR) —negotiable certificate issued by a U.S. bank representing a specified number of shares (or one share) in a foreign stock traded on a U.S. exchange.

Asset class — a specific investment category such as stocks, corporate bonds, sovereign bonds or money market instruments. Assets of the same class generally share characteristics that make them similar from a tax, legal and structural perspective, but this does not imply that they respond the same way to a given market event.

Basis point — one one-hundredth of a decimal point; 1 basis point = (1/100) de 1%.

Bond — a financial liability of an issuer (for example, a company or a government) to investors, under which the issuer undertakes not only to return the investors' capital, but also to pay an agreed interest rate on a specific date(s).

Cash — cash in hand and bank demand deposits.

Corporate bond — a bond issued by a corporation or company.

Credit default swap (CDS) — a financial instrument used by investors as protection against default on a bond; can also be used to take a speculative position on a bond covered by the CDS.

Credit rating — the level of solvency of the issuer of a financial instrument (company or country) as defined by a credit rating agency.

Duration — a measure of the sensitivity of a bond's price to changes in interest rates: the longer the duration, the farther the bond's price will fall in response to an increase in interest rates.

Equities — securities that represent the ownership or capital of a company; buyers of stocks become owners or shareholders of the company and thus have earnings or losses depending on the company's performance.

Ex ante tracking error — a measure of the difference between the return on an investment fund and its benchmark.

Exchange-traded fund (ETF) — a market-traded financial instrument that typically replicates a market index; traditionally used to obtain passive exposure to stock market indexes, but has expanded into fixed-income, commodities and even active strategies.

Fiscal Responsibility Law — Law N° 20,128, published in Chile's Official Gazette on 30 September 2006.

Fixed-income — investment instruments with a yield over a given period that is known at the time of their acquisition; sovereign and corporate bonds and bank deposits are fixed-income assets.

Global depositary receipts (GDR) —bank certificate issued in more than one country for shares in a foreign company. The shares are held by a foreign branch of an international bank. The shares trade as domestic shares but are offered for sale globally through the various bank branches.

Headline or reputational risk — the risk of an adverse public perception of an entity's management.

Inflation-indexed bond — a bond whose value varies in line with an inflation index; in the United States, these securities are known as Treasury Inflation-Protected Securities (TIPS).

Internal rate of return (IRR) — the effective yield on an investment, calculated taking the net present value of all cash flows as zero.

Investment policy — the set of criteria, guidelines and instructions that regulate the amount, structure and dynamics of an investment portfolio.

Leverage — the level of debt carried by a firm or investment vehicle.

LIBID — London interbank bid rate; the interest rate paid on interbank deposits. By definition, this rate is equal to the LIBOR minus 0.125%.

LIBOR — London interbank offered rate; the interest rate charged on interbank borrowing.

Liquidity — the degree to which an asset or security can be quickly bought or sold in the market without affecting the asset's price.

Money market instrument — a short-term asset with a maturity of less than a year, which can readily be converted into cash and is less volatile than other asset classes.

Mutual fund — an investment vehicle managed by an entity that brings together the capital of different investors and provides them with exposure to different asset classes; unlike ETFs, mutual funds are not traded on the market.

Passive management — an investment strategy that seeks to replicate the return on a representative index of an asset class or combination of asset classes.

Portfolio — the combination of investments acquired by an individual or institutional investor.

Quantitative easing — an unconventional monetary policy tool used by some central banks to increase the money supply, usually through the purchase of the country's own government bonds.

Recognition bond (bono de reconocimiento) — an instrument issued by Chile's Pension Normalization Institute (Instituto de Normalización Previsional) representing a worker's contributions to the old pension system before joining the new (private) AFP system.

Return (total) — the combination of the return in local currency and the return generated by exchange rate fluctuations.

Return generated by exchange rate movements — the share of the return that is generated by variations in the value of the dollar against other currencies in which assets are held.

Return in local currency — the return generated by a financial instrument in the currency in which it is denominated; corresponds to the share of returns associated with the level of interest rates and their movements, creditworthiness and other factors.

Risk — the possibility of suffering a financial loss; the variability of the return on an investment.

Sovereign bond — a bond issued by a government.

Special Drawing Rights (SDR) — International reserve assets created by the IMF to supplement its member countries' official reserves. SDRs can be exchanged for freely usable currencies.

Spread — the difference between the yield rate at maturity of two fixed-income instruments; used to measure their level of relative risk.

TED Spread — the difference between the interbank borrowing rate (LIBOR) and the risk-free rate (U.S. Treasury bills). A higher TED spread typically indicates a lower level of market liquidity.

Time-weighted rate of return (TWR) — a measure of return obtained by compounding or multiplying daily returns, excluding contributions and withdrawals; unlike the IRR, it excludes the effect of net cash flows.

Variable-income — Stocks.

VIX — the Chicago Board Options Exchange (CBOE) Volatility Index, which reflects market expectations for volatility over the next 30 days; based on the implied volatilities of a wide range of S&P500 index options.

Volatility — a measure of a financial asset's risk, representing the variation shown by its price over a period of time