

# 2016 Annual report





# Table of contents

- p. 02** Message from the Chairman of the Supervisory Board and Chairman of the Management Board
- p. 04** Key figures
- p. 05** The FRR in its economic environment
- p. 15** The FRR's performance
- p. 31** Socially responsible investment at the heart of the FRR's investment management
- p. 41** Risk management and control
- p. 46** Organisation and costs
- p. 47** Governance
- p. 48** Management structure chart

## Financial information

- p. 51** Financial and accounting summary
- p. 52** Balance sheet at 31 December 2016
- p. 54** Income statement at 31 December 2016
- p. 55** Notes to the annual financial statements at 31 December 2016
- p. 71** Statutory auditor's report at 31 December 2016
- p. 72** Mapping of the FRR's portfolio at 31 December 2016
- p. 75** The FRR's investment management companies in 2016
- p. 77** The FRR's investment management companies at 31 March 2017
- p. 79** Requests for proposals in progress at 31 March 2017

# Message from the Chairman of the Supervisory Board and Chairman of the Management Board

---



**Alain Vasselle**

**Chairman of the Supervisory Board**

The FRR benefited  
from cautious  
management of its  
interest rate positions.

2016 was a very complicated and paradoxical year.

Complicated as the markets went into it with deep fears for the economy after feeling the anguish of a drastic Chinese economic slow-down and sharp devaluation of the yuan in the second half of 2015. The further collapse in oil and commodity prices was seen as a reflection of Chinese economic weakness, and as a serious threat to high yield debt markets and banks.

Paradoxical too, as the markets' concerns about the economic outlook soon gave way to a feeling of reassurance. Disaster did not strike. Oil and commodity prices rallied strongly and drove a firm recovery for energy, commodity and financial stocks. Furthermore, the political scenarios dreaded by the markets came to pass without having any lasting impact. The Brexit shock was reabsorbed within a few weeks and, after an initial brief dip, Donald Trump's election led to a bull run on the US equity market. At the end of the year, the "no" vote in Italy's constitutional referendum and subsequent resignation of the Prime Minister, Matteo Renzi, quickly gave way to a clear overall improvement in eurozone equity markets.

However, the most fundamental change during 2016 came on fixed income markets. Whereas economic jitters at the beginning of the year pushed sovereign bond yields down to new lows, and the situation worsened after the Brexit shock, these yields then picked up – first modestly from the end of the summer, then dramatically after the US presidential election.

At the end of 2016, the equity portfolios' carbon footprint of the FRR was 28.9% less than that of its allocation's benchmark.

Trump's victory on 8 November was interpreted as a promise of robust budgetary and fiscal stimulus through ambitious infrastructure investments and substantial tax cuts. At the end of the year, the spectre of global deflation, which had been so daunting at the start of 2016, gave way to an expectation of global reflation.

In the midst of this heavy turbulence, the FRR benefited from cautious management of its interest rate positions, while its equities and high yield bonds, along with its emerging market debt holdings, ultimately delivered satisfactory performances, again highlighting the virtues of portfolio diversification.

The FRR completed some important tenders in 2016, renewing investment grade euro and dollar credit management mandates for a total of EUR 9 billion, and awarding three passive equity management mandates incorporating ESG criteria.

Work to reduce the equity portfolios' carbon footprint continued, and at the end of 2016 it was 28.9% less than that of its allocation's benchmark, showing further progress on 2015.

The FRR also decided to exclude companies that generate more than 20% of their revenue or energy production from coal, and drew up a policy to completely avoid the tobacco industry. This will mostly be implemented in 2017.

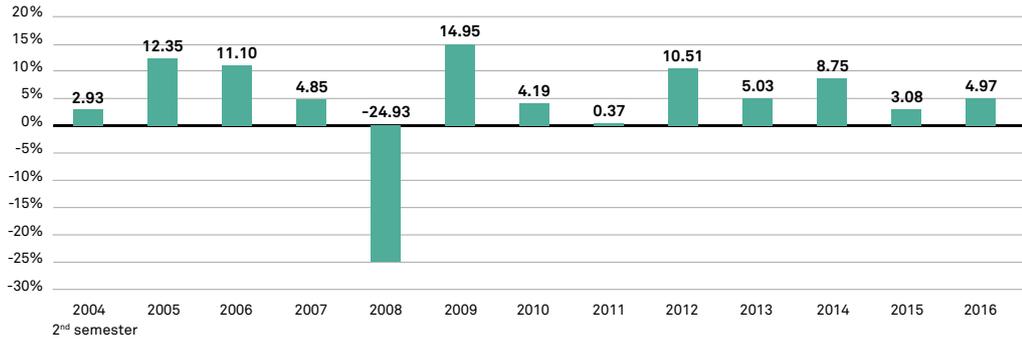
Lastly, the FRR made some progress with its commitment to make unlisted investments of EUR 2 billion to help finance the French economy, allocating EUR 600 million in unlisted debt mandates and moving forward with private equity mandates.



**Pierre-René Lemas**  
Chairman of the Management Board

# Key figures

## → The FRR's net annual performance



<p><b>EUR 36.004</b> billion The FRR's assets at 31/12/2016</p>	<p><b>+4.2%</b> Annualised performance of assets since June 2004</p>	<p><b>+5.4%</b> Annualised performance of assets since December 2010*</p>
<p><b>+4.97%</b> 2016 performance net of charges</p>		

## → Changes in the value of the FRR's net assets at 31 December 2016 (EUR billion)



\* Since the entry into force of the 2010 pensions reform, the FRR's financial model has changed substantially:  
 - the FRR no longer receives new investments (EUR 1.5 to 2 billion a year up to 2010);  
 - the FRR pays EUR 2.1 billion every year to the CADES.

# The FRR in its economic environment

## A STEADIER ECONOMIC SITUATION

Despite a tumultuous start to the year notable for concerns about the Chinese economy (fears of a hard landing and devaluation of the yuan) and the situation for commodity-producing countries, global economic growth is ultimately thought to have been +3.1% in 2016, down very slightly (-0.1%) on 2015 by the International Monetary Fund's estimates.

Developed countries grew by 1.6% as opposed to 2.1% in 2015. The rate in emerging countries was stable at +4.1%. This is good news as growth had been slowing in the emerging world since 2010. According to the IMF, it should rebound in 2017 to reach around 4.5%.

### → Annual GDP growth: world, developed countries and emerging countries between 1990 and 2016



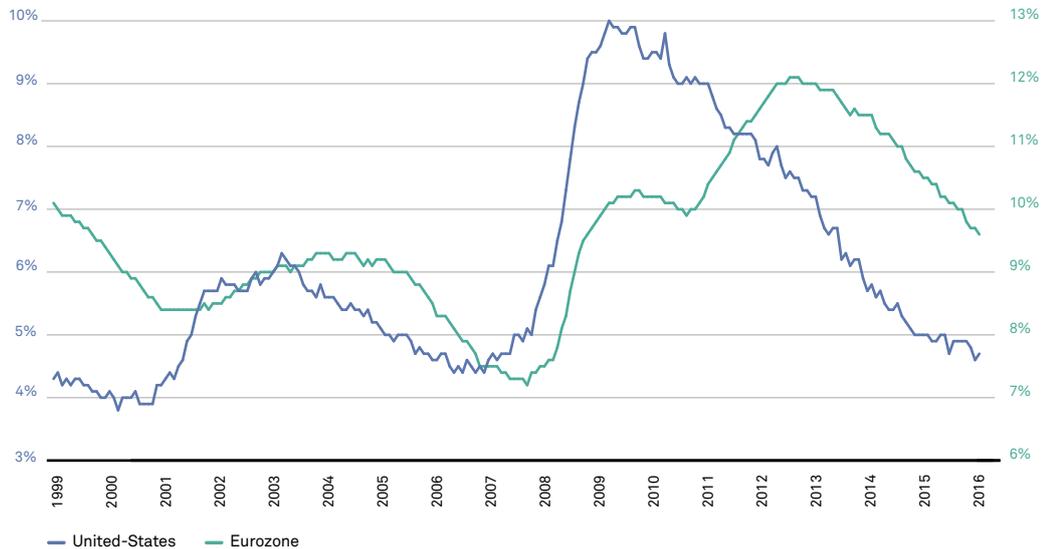
Source: Datastream, IMF.

In developed countries, the slower pace of growth was largely attributable to the United States, which experienced quite a considerable slowdown in the first half of the year. The world's biggest economy suffered from the past appreciation of the dollar, which had gained 17% between mid 2014 and the end of

2015, softer demand from emerging countries, and the energy industry's adjustment to the sharp drop in oil prices.

However, the US economy found a new lease of life in the second half of the year, largely on account of robust consumer spending and a

### → Unemployment rate in the United States and eurozone since January 1999



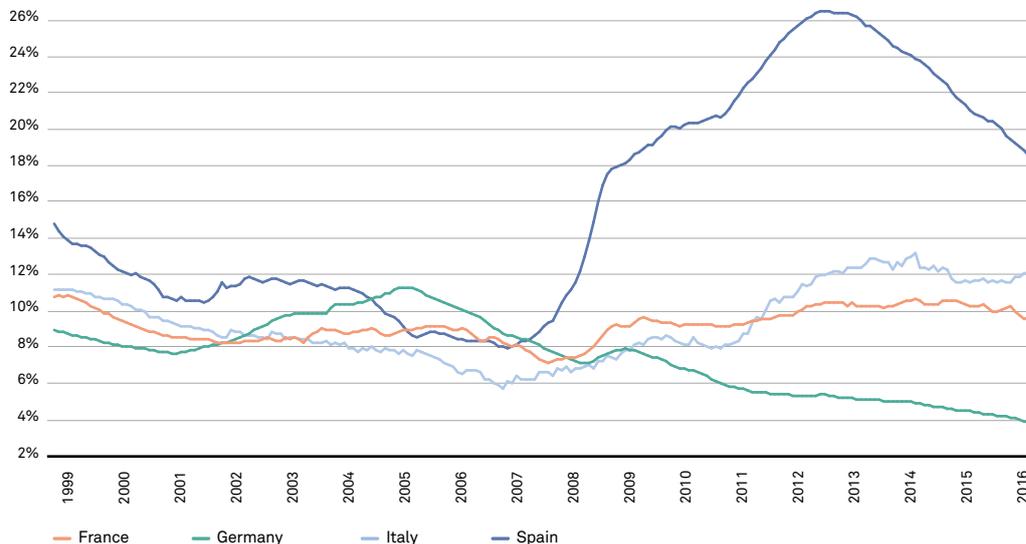
Source: Bloomberg.

constantly improving labour market. Indeed, the US unemployment rate had dropped to 4.7% of the working population at the end of December 2016, down 0.3 of a point over the year. The US labour market is now close to its pre-crisis level: an unemployment rate low of 4.4% at the beginning of 2007.

For 2016 as a whole, US growth is estimated to have been +1.6%, compared with +2.6% in 2015.

The eurozone managed to sustain growth of between 1.5% and 2% (+1.7% in 2016) through consumer spending and an upturn, albeit still modest, in corporate investment. It also created more jobs as the unemployment rate dropped from 10.5% to 9.6% of the working population. Since its peak of 12.1% in mid 2013, the unemployment rate has clearly been on a downward trend, even if the eurozone labour market is still a long way from its pre-crisis level. It had bottomed out at 7.2% in early 2008. The eurozone therefore seems to be in the middle of its business cycle, lagging behind the United States where the labour market is probably close to full employment.

## → Unemployment rate in the main eurozone countries since January 1999



Source: Bloomberg.

However, there are significant differences between individual eurozone countries in terms of both unemployment and the pace at which this is falling.

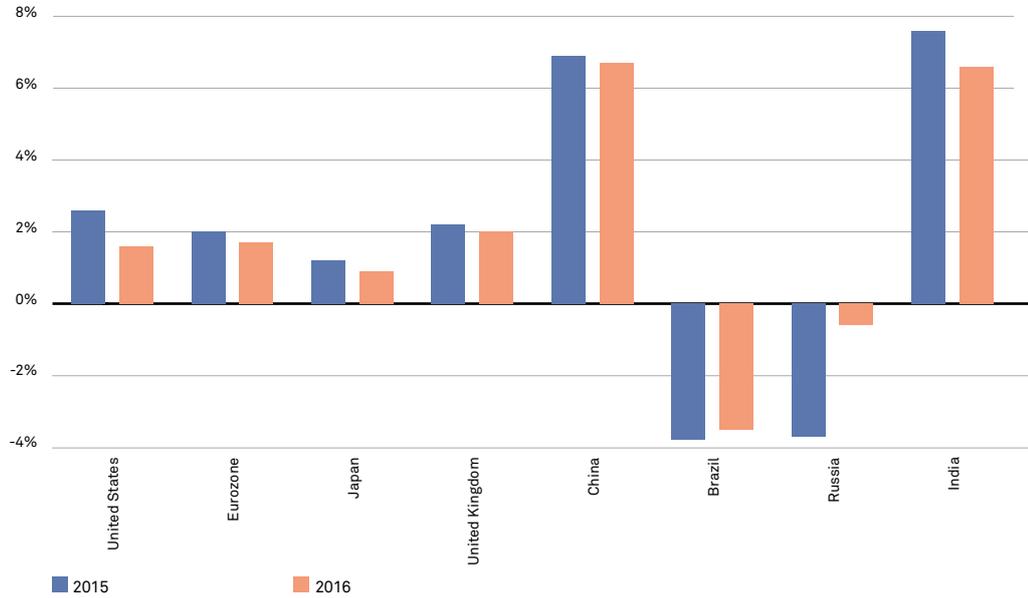
Germany has seen a steady reduction in its unemployment rate, and now seems close to full employment with a rate of 3.9% of the working population. Spain's labour market is improving rapidly, although unemployment remains very high at 18.4%. The Italian and French labour markets did not see any real improvement, although the fall in the French unemployment rate seems to have been accelerating since September (rate of 9.6%).

According to IMF estimates, the UK economy grew by 2% in 2016, down 0.2% on the previous year. The key event across the channel was the referendum on the United Kingdom's membership of the European Union on 23 June, which produced the famous Brexit. This vote heralded a period of political, institutional and economic uncertainty. The activation of article 50 of the Lisbon Treaty, which sets out the terms of a voluntary, unilateral withdrawal from the European Union, begins a two-year negotiating period to agree the conditions of departure.

The economic and financial consequences have so far been limited, barring the pound's dramatic response: a 10% drop against the euro since the outcome of the vote. This is good for British exports but will erode consumer purchasing power through higher import prices over the coming months. The UK economy is therefore likely to continue feeling the effects of Brexit in 2017, with growth of just 1.5% according to the IMF.

The eurozone managed to sustain growth of between 1.5% and 2% through consumer spending and an upturn in corporate investment.

→ Annual GDP growth in 2015 and 2016



Source: Bloomberg.

In emerging countries, China's growth faded a little but remains above 6.5% (+6.7% in 2016 after 6.9% in 2015). The world's second biggest economy is facing a number of structural challenges: transforming its investment- and export-driven economy into one fuelled by con-

sumer spending and services (taking its industrial base upmarket); production overcapacity; high corporate debt, and a property market showing signs of overheating.

→ China: annual change in foreign exchange reserves (USD billion)



Source: Bloomberg.

However, the Chinese government has substantial financial resources to complete the necessary reforms. The adoption of a more ambitious fiscal policy in 2016 meant that Chinese economic growth remained on track at around 6.5%, avoiding a hard landing. Although the Chinese currency stabilised in the second half of the year, fears of a weaker yuan persist due to heavy capital outflows, which continued throughout the year.

Brazil and Russia, the two big countries to have experienced serious economic difficulties in 2015, with a contraction of the economy, saw their situation improve, in particular through an oil and commodity price rally. However, the economic and political situation in Brazil remains complicated, and the economy again shrank considerably in 2016 (-3.5%) according to IMF forecasts.

### REBOUNING OIL PRICES AND COMMODITY PRICES

One of the key events of 2016 was the rebound in oil and industrial commodity prices (generally sensitive to the global business cycle) from a January low.

Oil prices had fallen from USD 115 a barrel on 19 June 2014 to USD 28 on 20 January 2016, a 75% reduction in the space of 19 months. The oil glut, resulting from US shale oil and high output in OPEC countries, was largely responsible for this fall.

Starting on 20 January 2016, oil prices more than doubled to end the year at nearly USD 57.

This increase stemmed from a rebalancing of supply and demand on the physical market, first due to temporary production stops, especially in Canada and Nigeria, and to lower production from tar sands, and then to the ratification of an agreement on 30 November to reduce output from OPEC countries, as well as other non-member countries such as Russia.

This rebalancing between supply and demand, which happened earlier than expected, also resulted from the continued rise in oil demand, especially in Asia, largely because the international economy did not collapse.

#### → Oil price in dollars (per barrel)



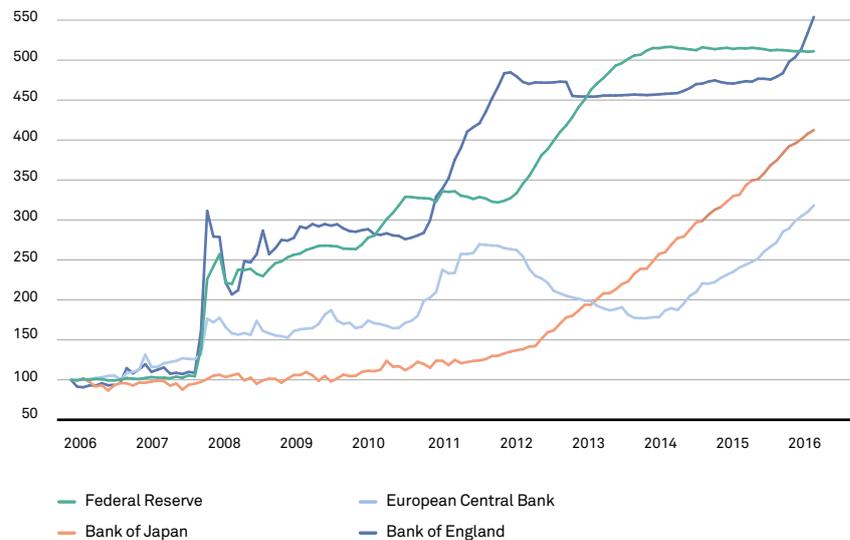
Source: Bloomberg.

## MONETARY POLICIES STILL HIGHLY ACCOMMODATIVE, BUT HAVING DIMINISHING EFFECTS

Central banks were even more cautious in pursuit of their monetary policy, mainly because they had a number of adverse factors to deal with: drop in commodity prices, fears about China and emerging countries, financial market losses at the start of 2016, the Brexit vote, and difficulties for the banking industry in several European countries.

Two of the main central banks followed a highly expansionist monetary policy in 2016, with unorthodox bond buying programmes: the Bank of Japan and European Central Bank. To avoid any squeeze on finances after the Brexit vote, the Bank of England showed a high degree of responsiveness, deciding to lower its key interest rate from 0.5% to 0.25% during the summer, and to resume its bond buying programme, which had been frozen since mid 2012.

### → Central banks' balance sheet – base 100 at 31 December 2006

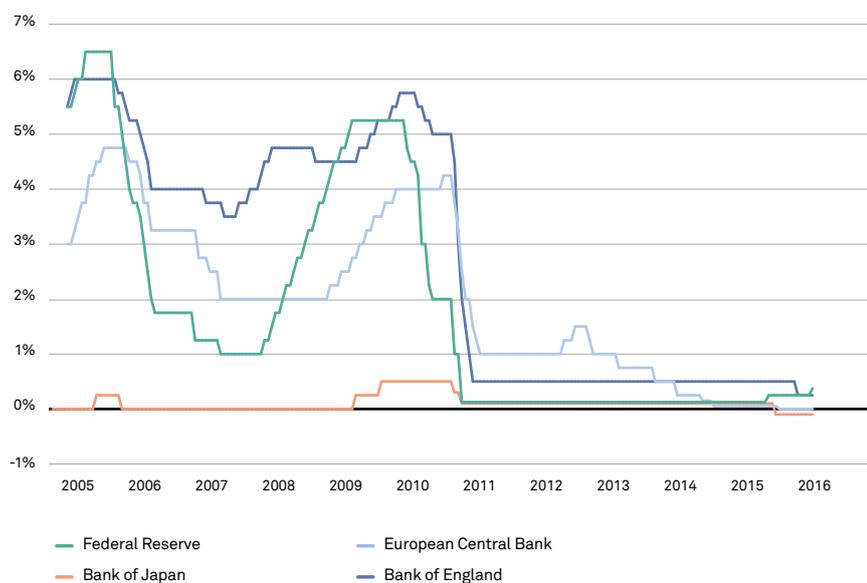


Source: Bloomberg.

Consequently, these three monetary institutions' balance sheets improved considerably over the year. Only the US Federal Reserve held tight in 2016, having completed its last asset buying programme in the fourth quarter of 2014. The Fed was the only major western central bank to really begin normalising its monetary policy, albeit very gradually, with an initial rate increase in December 2015 and a second in December 2016.

Despite central banks' very low key interest rates and application of unorthodox measures for several years, developed countries' growth has stayed below the 2% mark since the Great Recession, compared with an average of nearly 3% from 1980 to 2007. Moreover, some of these measures, such as central banks' use of negative interest rates (for example, the ECB's deposit facility rate is set at -0.40%), could have harmful indirect effects, especially on banks' profitability.

### → Central banks' key interest rates: United States, Eurozone, United Kingdom and Japan



Source: Bloomberg, Datastream.

The lack of private demand (consumer spending and investment) is often blamed for the weakness of the economic recovery more than seven years after the 2008-2009 financial crisis, despite the implementation of ultra-accommodative monetary policies.

This is why government use of fiscal stimulus is increasingly recommended, especially for countries where public debt is not too high. Furthermore, the newly elected US president promised massive tax cuts and an infrastructure investment programme to support growth and employment.



## FINANCIAL MARKETS

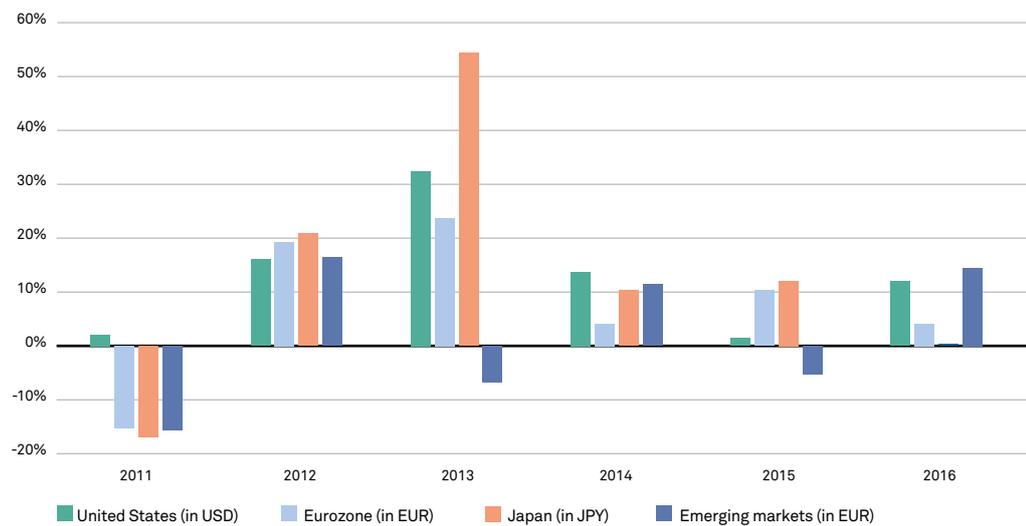
### Equities: US and emerging market equities outperformed

The major equity markets delivered positive returns (with dividends reinvested) in 2016.

Unlike in 2015, markets in the United States and emerging world posted gains of more than 10%, at +12% and +14.5% respectively (in euro), while the eurozone and Japanese equity markets fared less well, with respective performances of +4.1% and +0.3%.

The second half of the year was very profitable for investors, though, with rebound of the financial markets.

### → Equity yield per year, dividends reinvested



Source: Bloomberg.

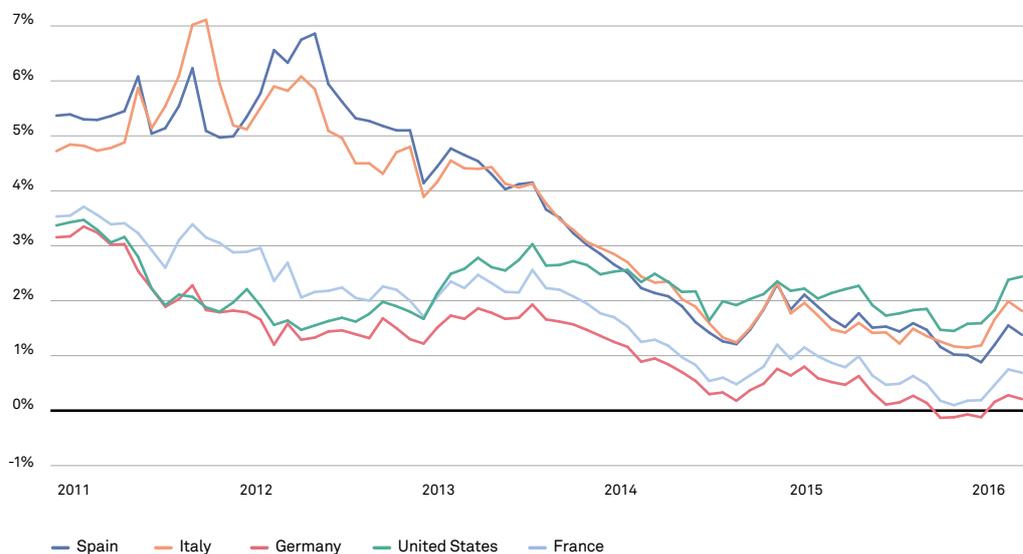
At the start of 2016, stock markets suffered first from the drop in oil prices, concerns about global growth (China, emerging countries, United States) and difficulties facing some of the European banking industry, and then from unexpected political shocks such as the Brexit vote. Japanese equities were negatively affected by the marked appreciation of the yen, which strengthened from 120 to 100 yen to the dollar over the first half of the year. The first six weeks of the year were very difficult for global stock markets, which lost between 10% and 20%.

The second half of the year was very profitable for investors, though, with a rally underpinned by a strong rebound in oil prices, improvement in the global economic cycle, and persistently

accommodative monetary policies from central banks (resumption of the Bank of England's asset purchase programme, and slower normalisation of the Fed's monetary policy with just the one rate hike as the year drew to a close).

Plus the markets welcomed Donald Trump's election as president of the United States, hoping for fiscal stimulus, which would probably benefit the economy and equity markets (with a likely rise in corporate earnings).

## → 10-year sovereign bond yields between 2011 and 2016



Source: Bloomberg.

### Interest rates: a new low reached in 2016

In difficult conditions over the first half of the year, and with central banks still ready to ease their policy in adverse circumstances, long-term interest rates continued their downward trend, and Germany's 10-year yield even dipped into negative territory in June (-0.18%). France's 10-year OAT yield reached a historic floor of just 0.10%.

Having low medium-to-long-term interest rates is good for public finances, reducing the debt burden and thereby increasing fiscal leeway.

Interest rates reversed their trend in the second half of the year, supported by a stronger global economy and upturn in commodity prices. Developed countries' inflation should automatically rise in 2017 through its energy component.

The election of the new US president in early November amplified the upward trend for sovereign bond yields. The announcement of a fiscal stimulus policy in an economy whose cycle is already well advanced should, in theory, heighten inflationary pressures in the United States.

The US 10-year yield climbed 1.05%, from 1.4% to 2.45%, over the second half of the year. In its wake, France's 10-year yield gained 0.6%, up

from 0.1% to 0.7%. Over the full year, the former moved 0.2% higher, while the latter shed 0.3%.

The short-term yield spread between the eurozone and the United States was very wide in 2016 at nearly 2%, the differential being between 2-year yields of -0.8% in Germany and +1.2% in the United States. Such a gap can be attributed to divergence between the monetary policies of the Fed (being normalised, albeit very gradually) and the ECB (fully accommodative and, for the moment, with no real prospect of normalisation).

### Currencies: euro down further, sterling weaker too

On the foreign exchange market, the euro lost about another 3% to the dollar in 2016, dropping from 1.086 to 1.052. This was the third consecutive year in which the euro depreciated, having seen its value against the dollar fall by 12% in 2014 and then 10% in 2015.

This trend actually reflects a significant appreciation of the dollar, which has gained 20% since mid 2014 in effective terms, i.e. adjusted for the weight of trade with partners, and for inflation. The real effective exchange rate of the euro declined by just 8.5% over the same period.

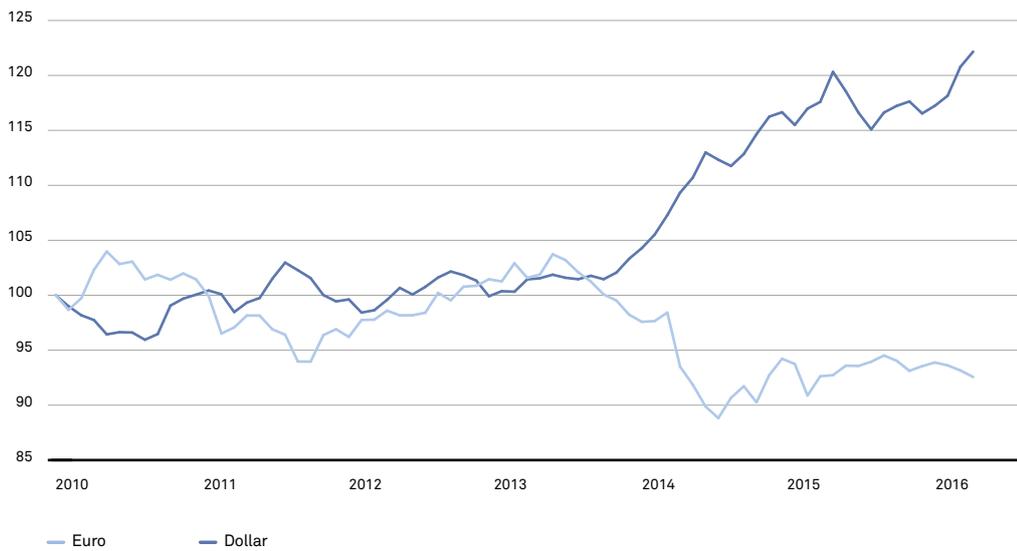
2016 also saw sterling plummet as a direct result of the Brexit vote. Between 23 June and 31 December 2016, the pound fell by 17% against the dollar and 10% versus the euro.

→ Euro/dollar exchange rate since 31 December 2010



Source: Bloomberg.

→ Real effective exchange rate – base 100 on 31 December 2010



Source: Bloomberg, Bank of International Settlements.

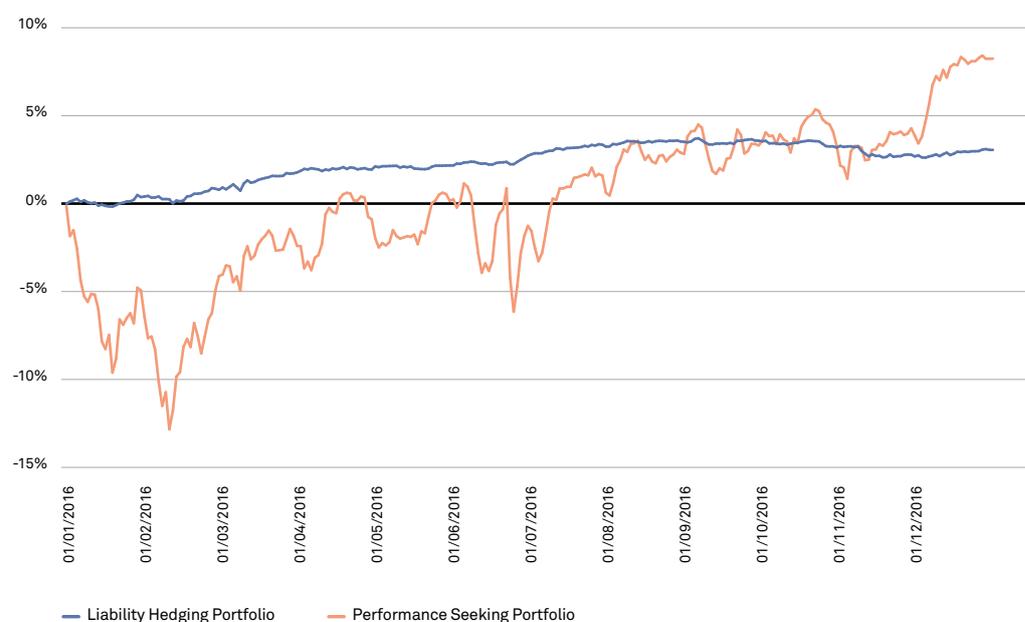
# The FRR's performance

## INCREASE IN ASSETS

In 2016, the FRR's overall performance was 4.97% net of charges, and its assets amounted to EUR 36.004 billion at 31 December.

Despite low interest rates in 2016, hedging assets appreciated by 3.1% due to fresh rate cuts in the eurozone and lower risk premiums in the United States. Performance assets had gained 8.2% at the end of a very turbulent journey.

### → Annual performance of both asset classes



Source: Index providers (FTSE Russell, MSCI, Barclays Capital, JPMorgan) via Spirris.

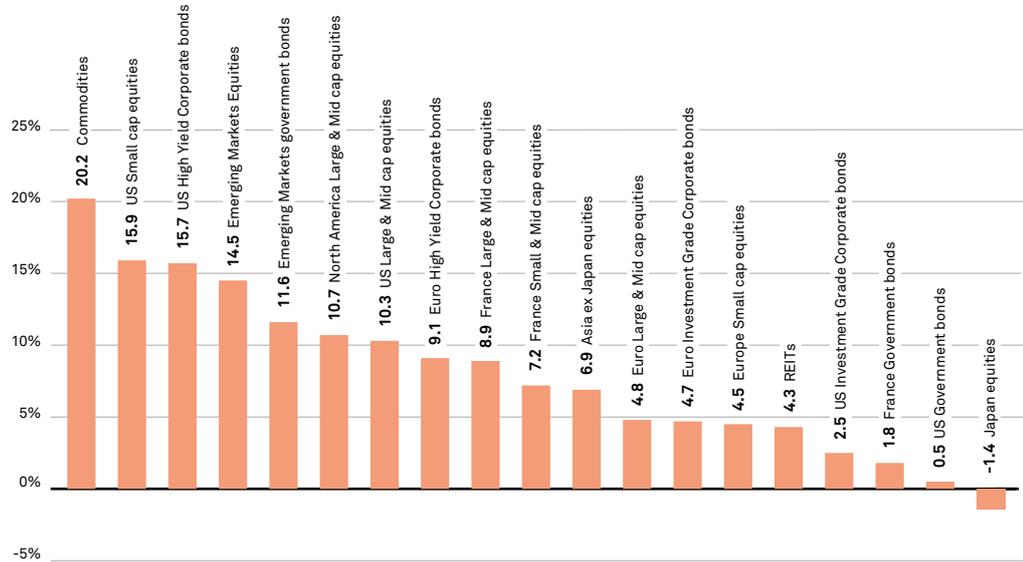
In 2016,  
the FRR's overall  
performance was  
4.97% net  
of charges.

Consequently, both types of assets contributed positively to performance in 2016: 1.3% for hedging assets and 3.7% for performance assets.

Taking a closer look at hedging assets, investment grade corporate bonds in euro performed best (+4.7%), ahead of those in dollars (+2.5%) and matching of FRR's liabilities, invested in OAT (+1.8%).

The equity portfolio's diversification was highly beneficial in 2016, through the FRR's sizeable positions in US and emerging market equities. The latter appreciated by 14.5%, beating the

## → Performance of the strategic allocation indices in 2016



Source: Index providers (FTSE Russell, MSCI, Barclays Capital, JPMorgan) via Spirris.

former (+10.7%) as well as eurozone (+4.8%) and Japanese (-1.4%) equities, i.e. in the opposite order to 2015. Equities were the main driver of performance over the year, contributing 2.3%.

Higher yielding assets (high yield bonds, emerging market bonds) also enjoyed an exceptional year, appreciating by 13.9% and 11.6% respectively, largely owing to the drop in risk premiums. Together, they added 1.22% to overall performance.

Both types of assets contributed positively to performance in 2016: 1.3% for hedging assets and 3.7% for performance assets.

31/12/2015 – 30/12/2016

NET CONTRIBUTION TO THE GLOBAL  
PERFORMANCE OF THE PORTFOLIO

<b>PERFORMANCE SEEKING ASSETS</b>	<b>3.75%</b>
Eurozone equities	1.15%
Equities Europe + SRI Europe	0.11%
ADECE Europe	-0.06%
ADECE World + SRI World	0.05%
Equities North America	0.58%
Equities Asia Pacific	-0.01%
Emerging Markets Equities (mutual funds)	0.49%
High Yield bonds (mutual funds)	0.49%
Emerging Market debt (mutual funds)	0.73%
<b>NON-LISTED ASSETS</b>	<b>0.22%</b>
Private Equity in euros	0.07%
Private equity in dollars	0.08%
Infrastructures	0.03%
Real Estate	0.00%
Private debt and equity balanced	0.02%
Private debt	0.04%
<b>LIABILITY HEDGING ASSETS</b>	<b>1.31%</b>
Euro-denominated corporate bonds	0.68%
Dollar-denominated corporate bonds	0.27%
Matching Liability (French Government Bonds)	0.46%
Cash	-0.10%
<b>ADMINISTRATIVE AND FINANCIAL CHARGES</b>	<b>-0.08%</b>
<b>TOTAL</b>	<b>4.7%</b>

Source: index providers (FTSE Russell, MSCI, Barclays Capital, JPMorgan).

## A SECURE, LIABILITY-BASED APPROACH THAT ENHANCES PERFORMANCE

### The FRR must reconcile two investment objectives

The FRR's main objective is to be able to service its liabilities, which consist of annual payments to the CADES of EUR 2.1 billion until 2024, and any payments to the CNAV<sup>1</sup> in respect of the CNIEG balance<sup>2</sup>, indexed to the FRR's performance. Under a relatively short liability-based investment model, the ability to comply with this objective can be assessed at any time on the

basis of the risk to the surplus. This is defined as the difference between the FRR's net assets and present value of liabilities<sup>3</sup>, and must be higher than 0. At 25 April 2024, when the FRR will no longer have any liabilities, the surplus will be equal to assets.

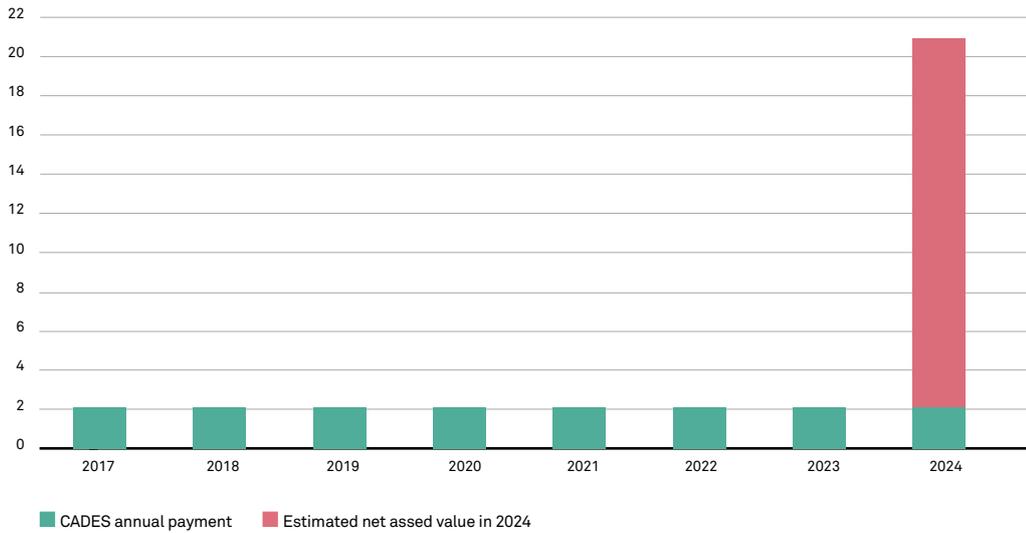
<sup>1</sup> National pension fund (Caisse nationale d'assurance vieillesse – CNAV).

<sup>2</sup> National electronic and gas industries fund (Caisse nationale des industries électroniques et gazières).

<sup>3</sup> The present value is obtained using "zero coupon" interest rates of the French government bond yield curve.

In line with this initial objective, a second aim consists in maximising the value of the surplus over time. In particular, the FRR must create value for the State, by delivering a performance in excess of the cost of the French debt.

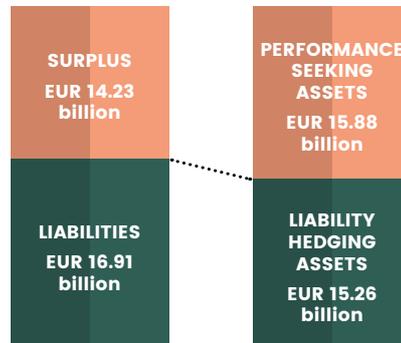
→ The FRR’s estimated liabilities and assets (EUR billion)



**Main objective: to service the FRR’s liabilities**

Compliance with this objective is assessed by means of several risk metrics applied to the surplus.

Interest rate risk is linked to the hedging of liabilities. The hedging assets enable the FRR to ensure that it is in a position to fully honour its annual liability payments. To that end, even in an extremely low interest rate environment, they must represent a substantial proportion of liabilities. The hedging assets include «OAT» (French Treasury Bonds)<sup>4</sup> delivering an income stream (from maturing issues and coupons), in proportion to the amount of the FRR’s liabilities, as well as euro or dollar-denominated investment grade corporate bonds (rated at least BBB-).



<sup>4</sup> Held until maturity.

## THE FRR'S CREATION OF VALUE FOR THE GOVERNMENT

Since the new liability-based investment model was introduced at the beginning of 2011, the FRR has made it possible to create additional value of EUR 8.8 billion in relation to the average cost of the French Government's debt, up EUR 1.6 billion during 2016. This EUR 8.8 billion corresponds to the difference between the increase in the FRR's assets, adjusted for contributions and disbursements, and the return on a theoretical investment of the same amount compounded each year at the average yield on French sovereign debt since 2011. The cost of French debt is adjusted upwards with a fixed premium of 0.10% to approach the total cost of debt issued by CADES.

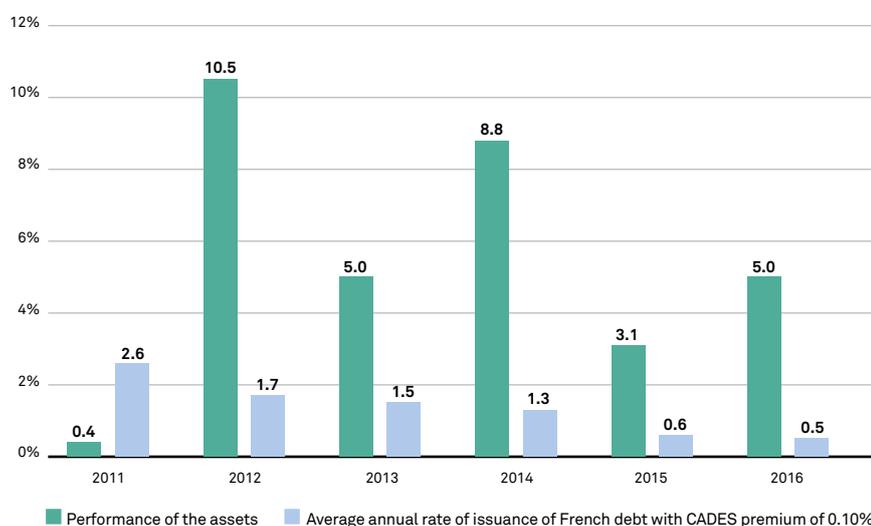
### → The FRR's creation of value for the government, compared with an investment made at the cost of French debt (EUR billion)



Source: FRR, Agence France Trésor.

Over the last six years, the annualised performance of the FRR's assets was 5.4% (5% in 2016) while the average annual yield on French sovereign debt (to which we add the CADES premium of 0.1%) amounted to 1.4% (0.5% in 2016).

### → Annual performance of the FRR's assets and weighted average cost of French debt



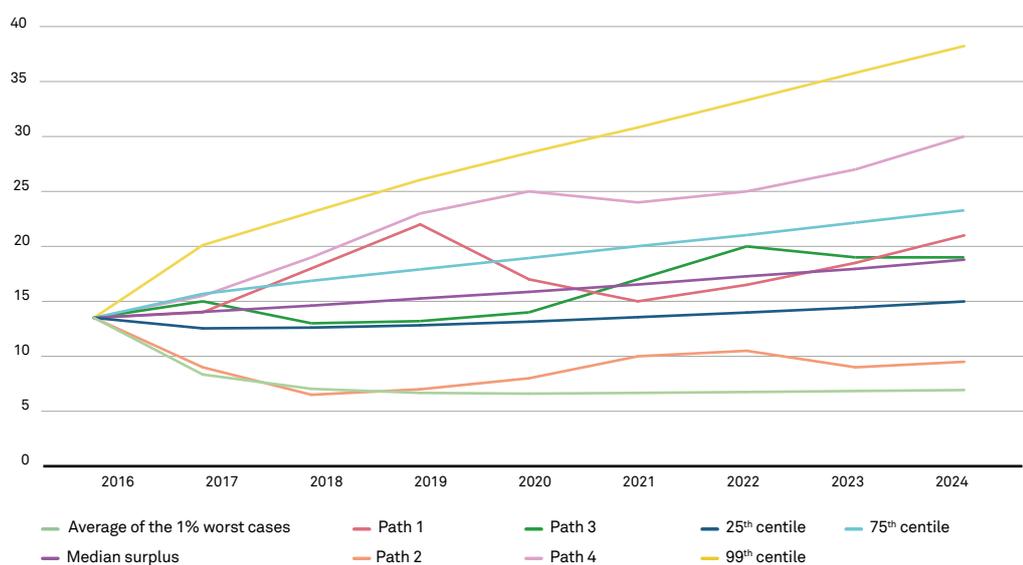
Source: FRR, Agence France Trésor.

The FRR has a surplus equal to the difference between its assets and the present value of its liabilities. The amount of hedging assets may then be slightly lower than that of liabilities, without jeopardising the Fund's ability to honour its commitments (in 2016 the proportion of liabilities not covered by hedging assets was very modest, at 5% to 15% of the liabilities). This enables the Fund to invest more in assets with higher upside potential (equities, high yield bonds and emerging countries), mainly as a result of current interest rate levels. A series of risk metrics is applied to check that the FRR is in

a position to meet all its financial obligations to CADES even in a very adverse scenario.

The portfolio's overall risk is assessed on both a short-term and long-term basis. Over the long term, a wide range of possible outcomes for projecting the surplus have been simulated for the period until 2024 (see graph), allowing us to estimate that at any given time the surplus will average 1% in the worst-case scenarios. This must be positive at all times, and should even allow us to maintain a safety margin to reflect the modeling risk inherent in this type of exercise.

### → Change in the surplus until 2024



Over the short term, we define a “disaster” scenario, based on the worst scenarios for the last 20 years for each FRR risk factor. In each case, the FRR surplus remains greater than 0.

#### Source of risk

#### Worst-ever historical scenario

Developed country equities	-53%
Emerging market equities	-57%
Developed country equities (hedged by introducing systematic option-based hedging strategies)	-30%
High yield corporate bonds	-35%
Emerging market bonds	-30%
Euro-denominated investment grade corporate bond credit (relative performance versus matching)	-17%
Dollar-denominated investment grade corporate bond credit (relative performance versus matching)	-20%
Liabilities	7%

For the FRR, the worst-case scenario is a significant increase in liabilities, because liabilities are under-hedged (90% at the end of 2016). If liabilities were to increase by 7%, the assets would increase by only 90% of the increase in liabilities (by amount). However, this “disaster” scenario would be particularly critical for interest rates, as it implies that the French yield curve will become very negative for all maturities (-1%).

### Second objective: creating significant value

While ensuring that it is in a position to service its liabilities, the FRR endeavours to maximise performance. It invests in particular in equities and high yield bonds, such as emerging market bonds, corporate bonds and loans to the economy. As the amount invested in hedging assets corresponds to only 90% of liabilities, the FRR can invest more in performance assets.

The FRR is thus expected to deliver a performance in excess of the cost of the French debt, thereby representing a substantial source of value creation. Since the pensions reform in 2010, the FRR has created value of EUR 8.8 billion. We estimate that, at the end of 2016, one euro invested in the FRR will create 25 cents of present-day value for the State, on a like-for-like allocation basis<sup>5</sup> and 2024 horizon.

Furthermore, every additional contribution can create up to 39 cents of value per euro as:

- this euro is then invested in the FRR, implicitly replacing an investment in French debt, and creating 16 cents of value per euro;
- each additional euro increases the FRR's surplus and therefore its safety margin. The FRR can then invest more in performance assets, raising the expected performance of assets already under management, and creating 26 cents of value per euro.

Conversely, each withdrawal destroys 39 cents of value per euro, by leading the FRR to secure the allocation further.

## THE FRR'S PORTFOLIO

With the exception of the management of operational cash requirements, all of the FRR's investments are made through investment service providers. To do this, the FRR may either use management mandates awarded through tender processes, or invest directly in investment UCIs<sup>6</sup>. Alongside traditional management, the FRR has appointed two managers to follow an overlay management approach. This type of management allows the FRR to hedge its currency risk and tactically adjust its asset allocation without getting involved in the management of the selected managers' portfolios.

The FRR is exposed to certain asset classes through UCIs managed in a predominantly active manner. These are investments made in emerging market debt, emerging market equities, high yield corporate bonds, loans to the economy, and money market instruments.

### Composition of the FRR's portfolio

In 2016, there were no major changes to the portfolio's composition relative to 2015. Performance assets' weighting in the strategic allocation for 2016, when established, stayed more or less the same as it was in 2015 (50%).

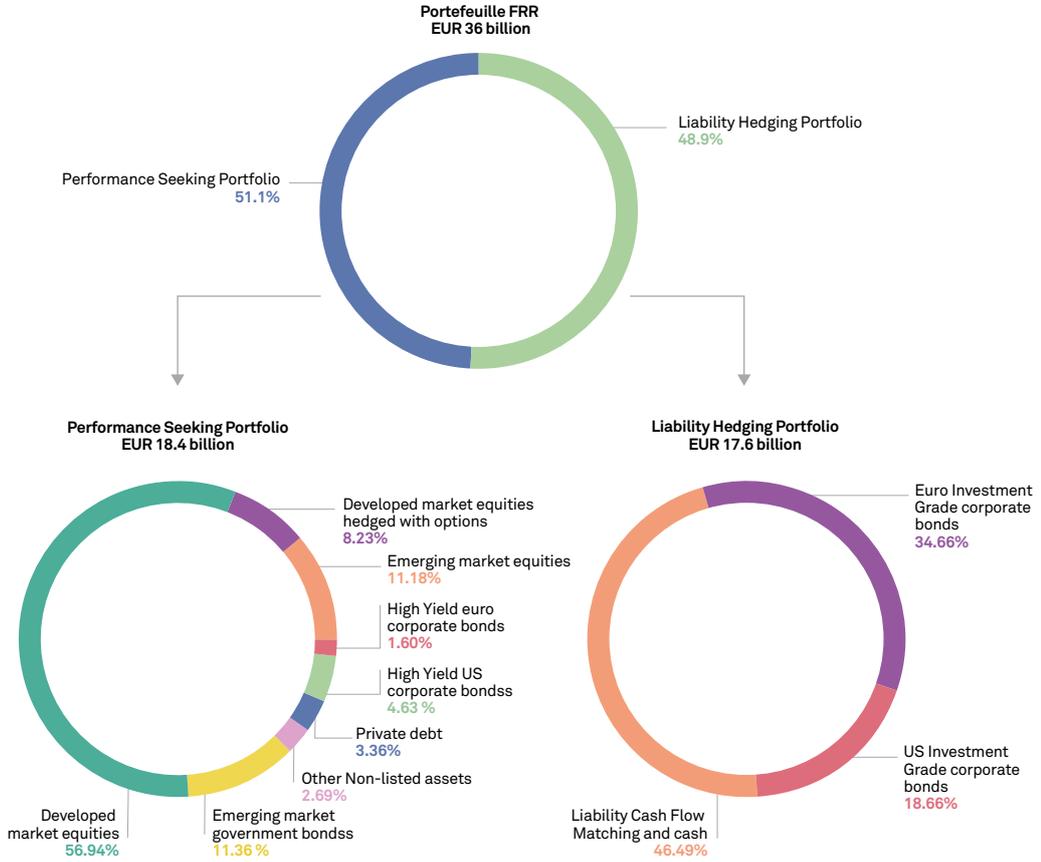
At 31 December 2016, the FRR's portfolio comprised:

- performance assets accounting for 51.1% of the FRR's net assets, versus 48.9% at the end of 2015; and
- hedging assets accounting for 48.9% of the FRR's net assets, versus 51.1% at the end of 2015. Matched assets accounted for 44% of the hedging assets and are held to maturity.

<sup>5</sup> Calculated as the additional projected amount in 2024 thanks to the contribution of this euro, discounted at OAT rates in 2016.

<sup>6</sup> UCIs: Undertakings for Collective Investment.

→ The FRR's portfolio at 31 December 2016



Source: Internal data.

The implementation of the strategic allocation for 2016 brought no significant changes.

### Performance assets

At 31 December 2016, the market value of the equity portfolio was EUR 12.9 billion (excluding overlay).

The weighting of performance assets was raised to a little over 51% in 2016. A 1% increase in the high yield corporate bond weighting offset the 1% decrease in the equity weighting.

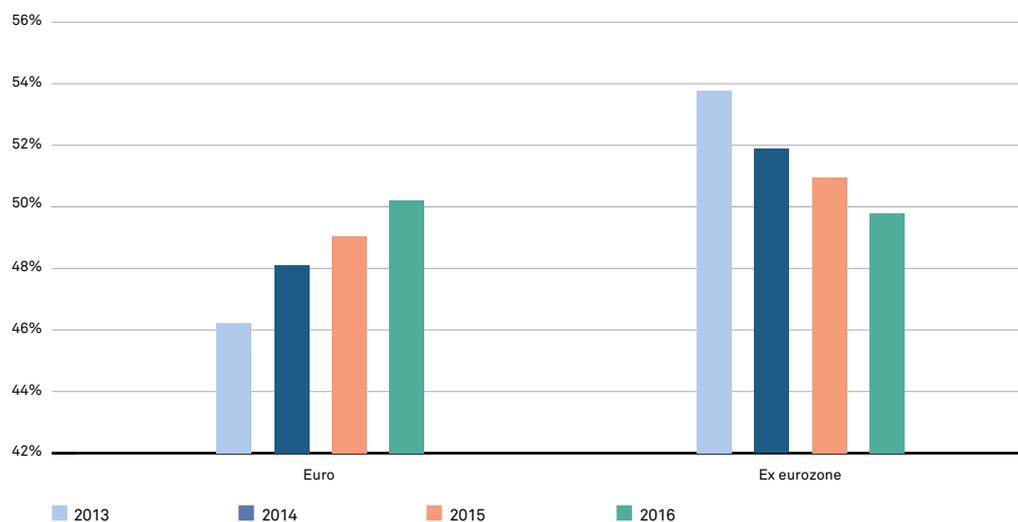
The 2% reduction in the emerging market equity weighting resulted solely from the reclassification of ADECE (developed market equities exposed to emerging market growth) equity mandates from emerging to developed countries.

At a regional level, the further increase in the weighting of eurozone investments to 50% in 2016, compared with 46% in 2013, was partly due to European equity investments managed against optimised indices being redirected to eurozone equities to improve currency risk management, and partly to the decision to close passive management mandates for European equities, as well as ADECE Europe and World mandates in order to activate two mandates managed against optimised indices in the eurozone. The ongoing selection of funds dedicated to lending to the economy has also been increasing investments in the eurozone since 2014, especially in France.

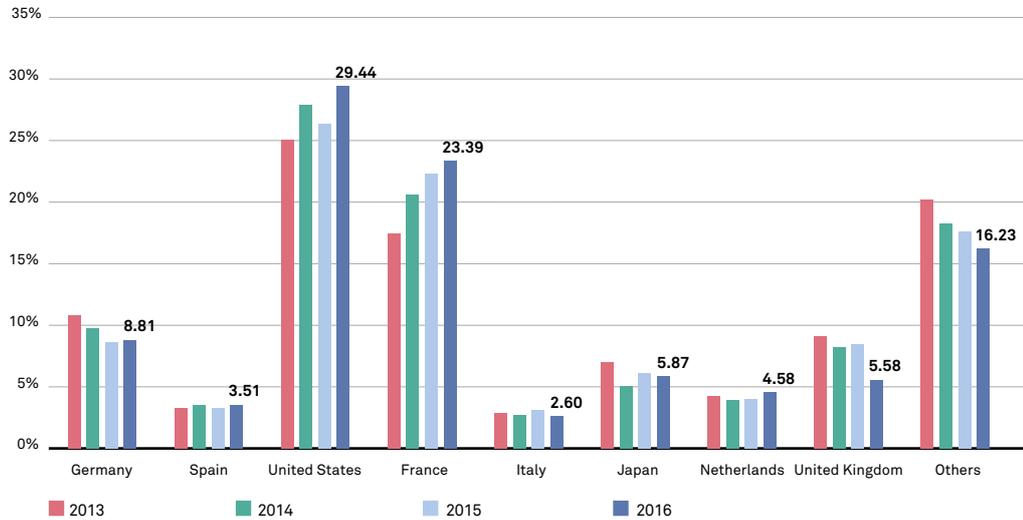
### Performance assets

<b>EQUITIES</b>	<b>38.9%</b>
European equities	21.2%
Non-European equities	13.4%
Equities hedged with options	4.3%
<b>HIGH YIELD CORPORATE BONDS</b>	<b>3.2%</b>
<b>EMERGING MARKET BONDS</b>	<b>5.6%</b>
<b>NON-LISTED ASSETS</b>	<b>3.4%</b>
Private debt	1.8%
Private equity	1.4%
Infrastructures and Real estate	0.2%
<b>TOTAL</b>	<b>51.1%</b>

### → Changes in the geographical breakdown of equity mandates



### → Changes in the geographical breakdown of equity mandates



#### Hedging assets

At 31 December 2016, hedging assets accounted for around 49% of the FRR's net assets, and mainly included financial instruments<sup>7</sup> used for matching liabilities, but also good quality corporate bonds.

The passive decrease of 2% in matching (linked to the use of coupons and OATs maturing in 2016 to pay the CADES) was offset by an increase in quality corporate bonds (1% in euro, 1% in dollar). The weighting of these bonds in hedging assets reached 49% at the end of 2016 and accounted for most of the return on bond investments. This asset class was the subject of 11 new mandates in euro and dollars, renewing previous mandates.

Bonds issued in dollars are systematically hedged against currency risk.

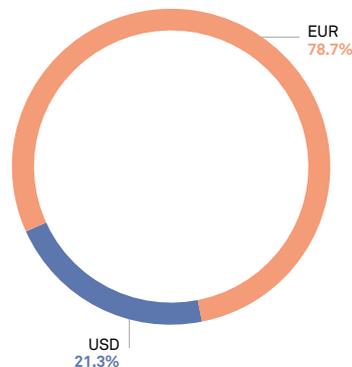
#### Hedging assets

<b>INVESTMENT GRADE BONDS</b>	<b>47.7%</b>
Liability cash flow matching	21.5%
Developed country bonds	0.0%
Investment grade corporate bonds	26.2%
<b>CASH</b>	<b>1.2%</b>
<b>TOTAL</b>	<b>48.9%</b>

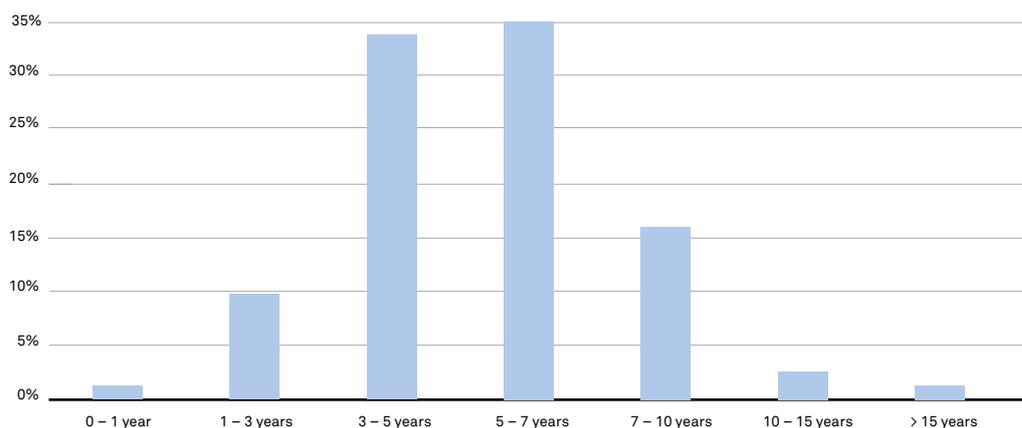
<sup>7</sup> "Buy&hold" French government bond type instruments.

In 2016, the weighting of performance assets was raised to a little over 51%, compared with 48.9% in 2015.

→ Breakdown of fixed income mandates by currency at 31 December 2016



→ Structure of bond mandates by maturity range at 31 December 2016



**Breakdown of the EUR 2.1 billion payment to the CADES**

As has been the case every year since the pensions reform of 2010, the FRR must pay EUR 2.1 billion to the CADES. This amount broke down as follows for 2016:

- EUR 1.26 billion from matching, including EUR 800 million through coupons falling due and bonds reaching their natural maturity;
- EUR 760 million from the sale of equities (EUR 260 million from emerging market equity funds, EUR 300 million from futures on US equities, and EUR 200 million from futures on European equities outside the eurozone);
- EUR 350 million from sales of mandates for high quality corporate bonds denominated in euro.

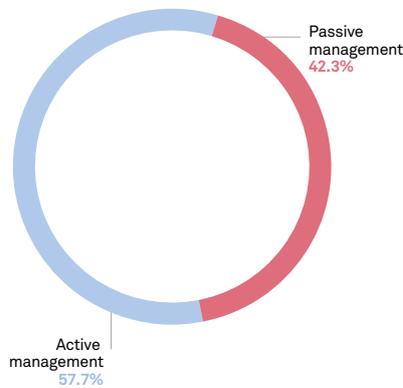
**Breakdown of the portfolio by management type**

The FRR uses different types of management to achieve its asset allocation objectives:

- Passive management for substantial unitary amounts; and
- Active management aimed at seeking a continuous relative outperformance.

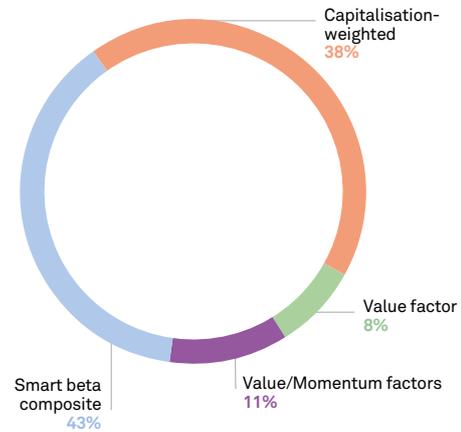
At 31 December 2016, around 57.7% of the FRR's total net assets and 57% of equity investments were managed actively.

→ Breakdown of the equity portfolio by management type, excluding overlay management\*

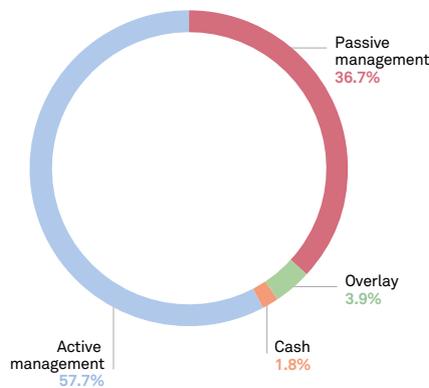


\* Corresponding to EUR 5.5 billion for passive management and EUR 7.5 billion for active management at 31/12/2016.

→ Breakdown of passive management types for developed market equities, end-2016



→ Breakdown of the portfolio by management type (all asset classes combined)\*\*



\*\* Corresponding to EUR 1.4 billion for overlay management, EUR 0.6 billion for cash management, EUR 13.2 billion for passive management and EUR 20.8 billion for active management at 31/12/2016.

Smart beta management accounted for around 57% of the EUR 5.5 billion managed passively in developed markets at the end of 2016. Nearly all of these investments applied a decarbonisation method in 2016.

Pursuit of two main strategies

Ongoing investment in the french economy

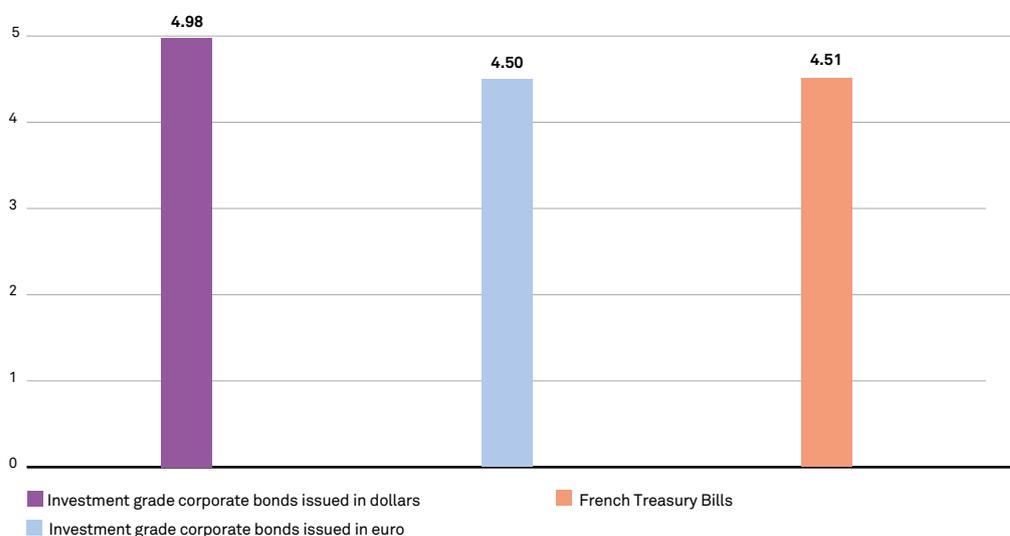
The FRR continued its programme of investing in unlisted funds that specialise in issuing loans in support of the French economy.

This saw the FRR invest more than EUR 200 million in 2016, especially in loans to the French economy. A number of tenders issued in 2016 will also lead to investment commitments from 2017: private debt funds (EUR 600 million) and private equity funds (EUR 900 million) will be used to disburse most of the EUR 2 billion budget for investing in unlisted French assets (private equity, business loans, real estate and infrastructure).

The new programmes to which the FRR committed led to large calls for funds:

- EUR 14 million in real estate;
- EUR 168 million in loans to the economy;
- EUR 22 million in NOVI funds (mixed corporate bond and equity funds).

## → Modified duration of fixed income mandates at 31 December 2016



### A reduction in the portfolio's modified duration

The second strategy pursued by the FRR involves reducing the hedging assets' modified duration so that the FRR's surplus appreciates when interest rates rise.

### Introduction of option-based hedging strategies

Through a strategic allocation encompassing 6% option-hedged investments in developed market equities, the FRR has regularly used option strategies to hedge its portfolios. For example, these strategies suitably mitigated the risks to the portfolio at the time of the Brexit referendum in June. Around EUR 2 billion in European equities and EUR 1 billion in US equities were then hedged, equating to around 8.5% of the FRR's assets.

### Other mandate changes

Three other notable changes were made to the life of mandates, but did not affect the portfolio's exposure:

- in the eurozone, (capitalisation-weighted) passive equity management mandates were replaced with passive management managed according to the MSCI Momentum Enhanced Value Target® index, for EUR 530 million. This index optimises exposure to the Value and Momentum factors, and delivered a return on investment of 12.3% in 2016, compared with 9.1% for the capitalisation-weighted index;

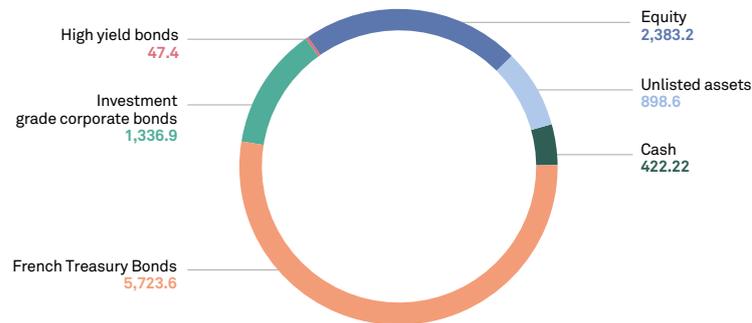
- the expiry of ADECE Europe (EUR 310 million) and World (EUR 430 million) mandates in July and October respectively. These sales were offset by purchases of futures pending reinvestment in future optimised passive equity management mandates that include ESG criteria;
- the EUR 450 million increase in active management of US equities in December was offset by a sale of futures on US equities.

**A EUR 910 million increase in decarbonised investments.**

### AMOUNT OF ASSETS INVESTED IN THE FRENCH ECONOMY AT 31/12/2016

The total amount of investment in the French economy stood at EUR 10.812 billion, i.e. approximately one third of the FRR's total assets..

#### → Assets invested in the French economy (EUR million)



Furthermore, new investments in passive equity management mandates managed according to the RAFI Eurozone (+EUR 380 million) and MSCI Momentum Enhanced Value Target Eurozone® (+EUR 530 million) indices, were decarbonised, replacing previous non-decarbonised investments.

Decarbonised investments thus increased by EUR 910 million in 2016 (excluding the market effect).

#### Contribution from the different asset classes to the portfolio's performance

The FRR portfolio's performance amounted to 4.97% in 2016, with contributions of 1.31% from hedging assets and 3.75% from performance assets.

The diversification of performance assets was highly beneficial in 2016. European equities were the main sources of this performance, adding 1.2% of the 3.75% coming from this asset class. Such a large contribution is primarily attributable to their weighting in the portfolio: 22.5% at the end of 2016.

Other assets also boosted performance despite their lighter weighting in the portfolio:

- emerging market bonds accounted for 0.73% of the performance, and their total weighting was 5.8%;
- US equities accounted for 0.61% of the performance despite a weighting of just 7% net of hedging;
- high yield corporate bonds added 0.49% to performance with a weighting of 3.1%;
- emerging market equities contributed 0.49% to performance with a weighting of 5.7% at the end of 2016.

## NEWS ON TENDERS

2016 was a busy year for tenders. The FRR started the year by activating 11 new active management mandates for corporate bonds issued in euro (6) and US dollars (5). These new mandates replaced the previous ones to maintain the FRR's exposure to this asset class.

As part of its programme of unlisted investments to support the French economy, and in relation to the EUR 2 billion budget allocated to this, the FRR made several calls for tender:

- **In April**, the FRR launched an initial tender process for French corporate bonds, with an initial amount of EUR 300 million. This contract was split into two lots. The first was intended to finance businesses through private investment (bond issue or loan), the second to finance companies' acquisition debt. At the end of the selection process, Schelcher Prince Gestion and BNP PAM were chosen for lot 1 – Private investments. Lyxor Institutional AM and Idinvest Partners were chosen for lot 2 – Acquisition debt.
- **In June**, the FRR launched a new call for tenders relating to the selection of private equity funds. This involves investment through funds in companies whose headquarters are located exclusively in France. The provisional amount that can be allocated to this management strategy may reach EUR 400 million, and could be divided between up to four managers. The final selection will be made in 2017.
- **In November**, the FRR issued a call for tenders in order to select several managers capable of creating and managing a dedicated fund invested solely in the venture capital/innovation equity or equity equivalent capital of companies headquartered in France. These investments are earmarked for financing the initial stages of a company's development, i.e. start-up and growth. The rough amount allocated to this strategy may reach EUR 200 million, divided between up to four managers. For this contract, the final selection of managers should be made in 2017.

2016 also saw the finalisation of the negotiated procedure for selecting managers responsible for new optimised equity index management mandates taking environmental, social and governance (ESG) criteria into account. The final selection involved three managers\*, for a rough total of EUR 5 billion.

The FRR also renewed the contract for best execution analysis\*\* as well as a contract for the analysis of its portfolio's non-financial risks\*\*\*.

\* Amundi, Candriam Luxembourg and Robeco Institutional AM B.V.

\*\* Trade Analytics UK Ltd.

\*\*\* Vigeo SAS.

Indeed, the performances of US equities (10.7%), emerging market equities (14.5%), high yield corporate bonds (13.9%) and emerging market bonds (11.6%) were better than those of euro-zone equities (4.8%) in 2016.

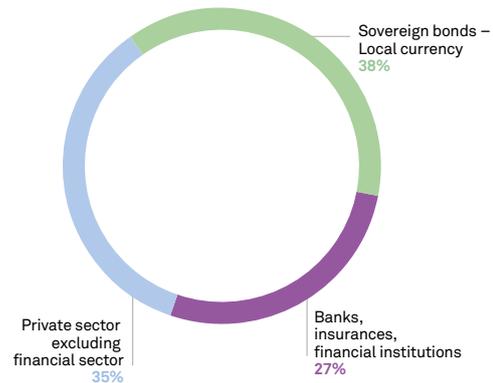
The remaining performance (0.22%) came from unlisted assets (private equity, infrastructure, real estate, private debt), which all made positive contributions.

The FRR's hedging assets all raised performance too in 2016. Euro-denominated bonds above all benefited from the drop in yields, from 1% to 0.7% in the case of French 10-year yields. Dollar-denominated bonds were helped more by the drop in risk premiums, from 1.7% to 1.2% at the end of 2016. Indeed, the US 10-year yield actually rose in 2016, from 2.2% to 2.5%.

The performance of the FRR's matched assets amounted to 1.8% in 2016, compared with 4.7% for corporate bonds in euro and 2.5% for those in dollars. Although the latter two allocations' weighting was lower (17% and 9.2% respectively at the end of 2016, versus 21.4% for matched assets), contributions to the performance of hedging assets were quite balanced:

- 0.68% for high quality corporate bonds in euro;
- 0.27% for high quality corporate bonds in dollars;
- 0.46% for liabilities matching.

#### → Breakdown of fixed income products by category of issuer at 31 December 2016



### THE FRR TEAMS' QUALITY AND EXPERTISE WON TWO IPE AWARDS IN 2016

The FRR was nominated for IPE\* awards (one of the biggest events in the European pension fund calendar) in the following categories in 2016: French pension fund, European reserve fund, portfolio construction, external asset manager specialist, smart beta, and passive management.

The FRR took first place in the following categories:

- smart beta, recognising the development of passive investment in optimised equity indices, as well as the FRR's original approach; and
- external asset manager specialist, acknowledging the work selecting and monitoring external managers within the framework of mandates or UCI selection.

As a reminder, the FRR received the prizes for best portfolio construction and best European reserve fund in 2015\*\*. In 2014 the FRR was named best French pension fund.

\* Investment & Pensions Europe.

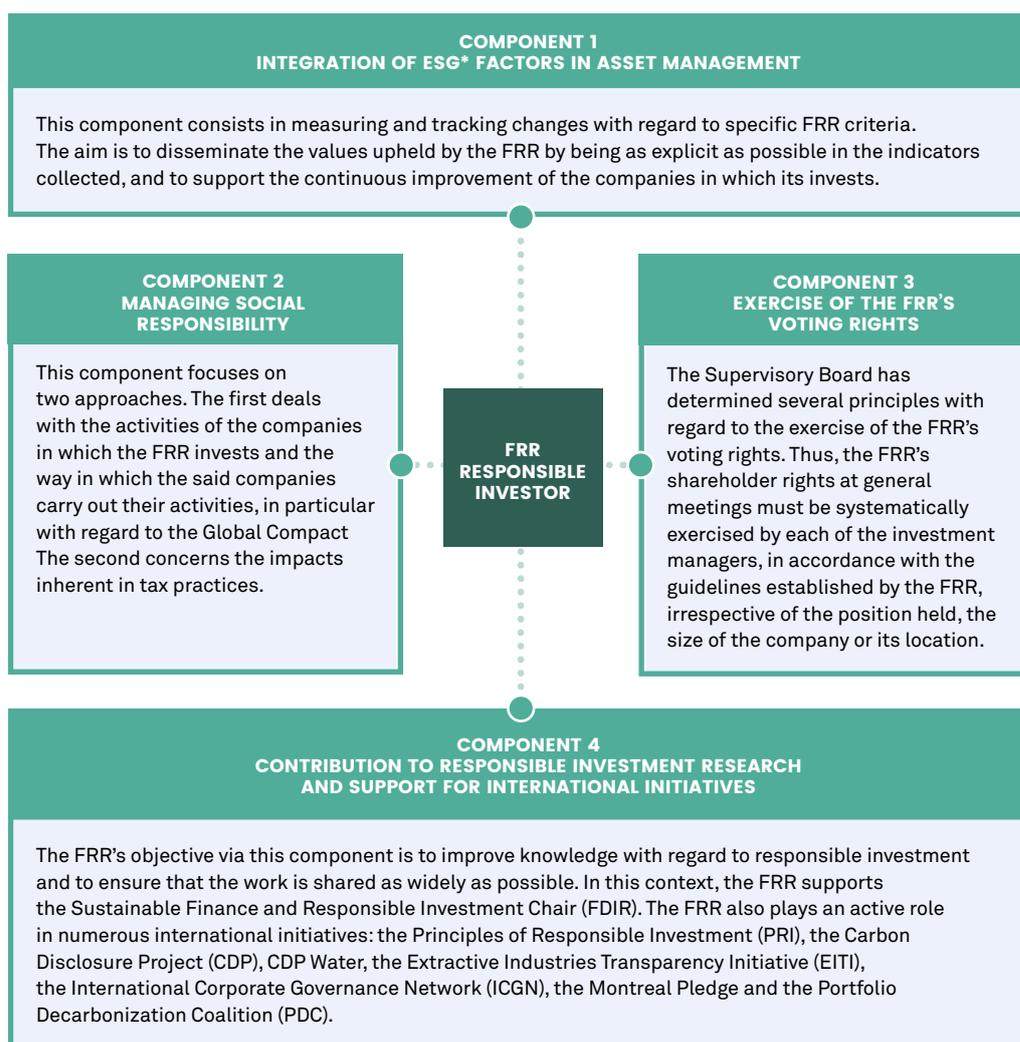
\*\* With the NLB Penziski fund.

# Socially responsible investment at the heart of the FRR's investment management

## RESPONSIBLE INVESTMENT STRATEGY FOR THE 2013–2018 PERIOD

In 2013, the FRR's Supervisory Board adopted a new Responsible Investment Strategy. The 2013–2018 strategy has four key components within a system of regular monitoring by the Responsible Investment Committee composed of members of the FRR's Supervisory Board and experts.

## FRR RESPONSIBLE INVESTOR: REMINDER OF THE PRINCIPLES



\* Environmental, Social and Governance.

## THE FRR, A RESPONSIBLE INVESTOR

### The FRR excludes the tobacco industry

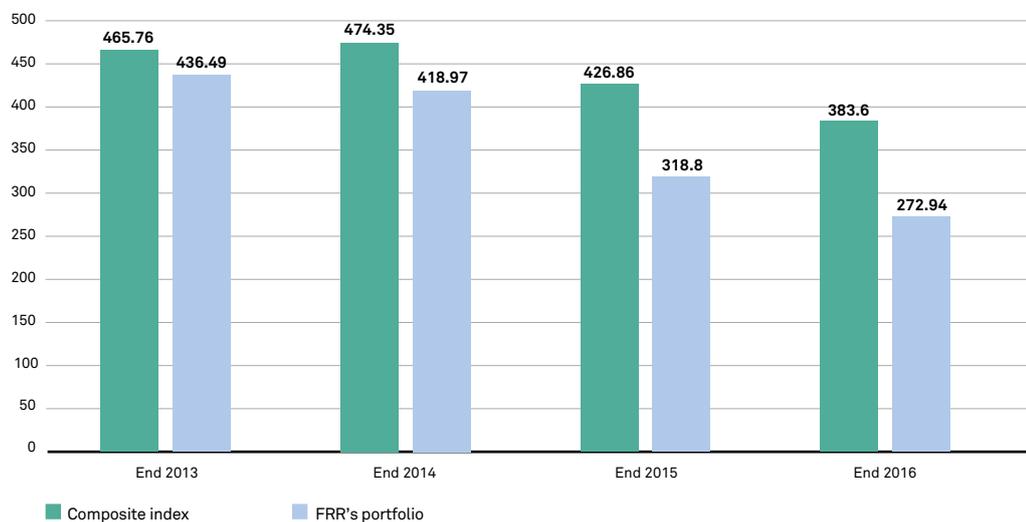
Tobacco is responsible for six million deaths a year worldwide, and generates considerable costs for healthcare systems and insurers. In response, the World Health Organization, governments and civil society are increasingly coming together to discourage tobacco consumption, and this could eventually weigh on these companies' performance. The FRR also believes that dialogue with these companies cannot achieve anything, as the only question that can be asked of them is to quite simply give up their business. This is why the FRR decided to exclude the tobacco industry from its portfolio at the end of 2016.

### The FRR provides information on the carbon footprint of its equity portfolio

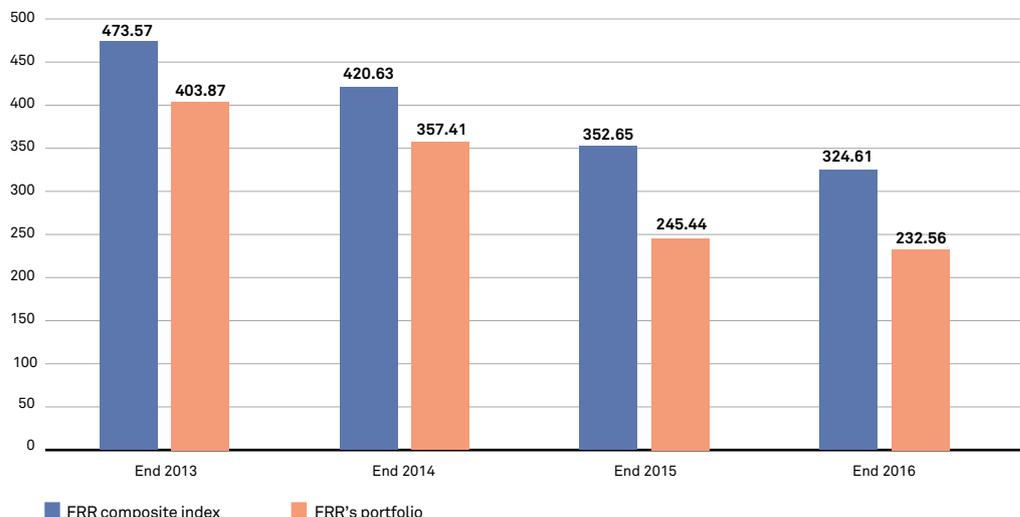
The FRR calculated the environmental footprint of its portfolio for the first time in 2007, including the carbon footprint. The FRR has been evaluating its portfolio annually since 2013. In 2016, it made a call for tenders to select a service provider that could assess its emerging and developed market bond and equity portfolios' environmental footprint for the next three years. The study covers emissions generated through companies' and their direct suppliers' business. S&P Trucost Ltd was selected to measure this footprint.

The FRR has chosen to measure its carbon footprint using two complementary methods: in terms of capital and revenue. The carbon footprint in capital terms, calculated in tonnes of CO<sub>2</sub> equivalent per EUR 1 million invested, represents the amount of emissions financed by the FRR's assets, whereas the carbon footprint in terms of portfolio revenue, obtained by dividing companies' annual CO<sub>2</sub> emissions (in tonnes) by their annual revenue in millions of euro, also shows the efficiency of the companies in which the FRR is invested. Within the latter measure, the FRR also distinguishes between the sector effect and the asset selection effect within each sector, relative to its composite index.

### → Method using revenue (t CO<sub>2</sub> e / EUR 1 million of revenue)



### → Method using capital (t CO<sub>2</sub> e per million euro invested)



At the end of 2016, the carbon footprint of the FRR's equity portfolio was 272.9 tonnes of CO<sub>2</sub> equivalent per million euro of revenue. It is 28.9% lower than that of the FRR's benchmark index<sup>1</sup>. The difference widened again in 2016. Between 2013 and 2016, the FRR's portfolio reduced its carbon footprint by 37.5%, whereas the benchmark's fell by just 17.6%. This performance essentially results from the decarbonisation process under way since 2014 on passively managed equity portfolios.

For each million euro invested in the FRR's portfolio in 2016, absolute emissions amounted to 232.6 tonnes of CO<sub>2</sub> equivalent, 28.4% less than for the benchmark.

By this yardstick, the FRR's portfolio reduced its carbon footprint by 42.4% between 2013 and 2016, whereas the benchmark's fell by just 31.6%.

Whichever method is used, the FRR's portfolio is emitting less and less carbon year after year. It also emits less than its benchmark, and thanks to the FRR's determined decarbonisation policy for its equity portfolios, it has extended its lead.

<sup>1</sup> 15.9% MSCI Emerging Markets index +42.5% FTSE Developed All Cap Excluding Eurozone index +41.6% FTSE Developed Eurozone All Cap index.

#### FOCUS ON THE ENERGY TRANSITION FOR GREEN GROWTH ACT

Although not bound by the Energy Transition for Green Growth act, the FRR has adopted the framework set out in the new disclosure requirement for institutional investors regarding the incorporation of ESG criteria into their investment policy and practices, and specifically their management of climate-related financial risks (paragraph 6 of article 173 of the Energy Transition for Green Growth act, extension of article 224 of Grenelle II). Accordingly, the FRR has decided to detail its environmental, social and governance externalities in a separate document, independent of this annual report. The FRR is also working on new innovative metrics to assess its environmental impact.

### The FRR withdraws from coal

The FRR has been firmly committed to the ecological and energy transition theme these past two years. It has signed up to several international initiatives aimed at reducing its portfolio's greenhouse gas emissions. It has also joined a coalition of investors demanding greater transparency in how businesses approach energy transition.

To reflect this commitment, the FRR has implemented an ambitious policy aimed at reducing its portfolio's CO<sub>2</sub> emissions through low carbon management. This is achieved through benchmarks that reduce CO<sub>2</sub> emissions by at least half relative to standard indices, and by asking passive managers on most of the other indices to implement a management process that seeks to reduce the portfolio's carbon footprint. Going even further, in 2016 the FRR decided to exclude companies whose thermal coal mining or electricity generation business exceeds 20% of their revenue.

## THE FRR'S INTERNATIONAL COMMITMENTS

### Involvement in drafting the United Investment

At the beginning of 2005, the Secretary General of the United Nations invited a few of the world's biggest institutional investors, including the FRR, to come together and establish a number of principles for promoting the incorporation of socially responsible investment practices into financial management. After six working sessions, and with expert help from representatives of the various stakeholders (companies, NGOs, researchers, etc.), the "Principles for Responsible Investment" were established before being officially signed in New York and Paris during the spring of 2006.

The PRI now reflect the shared values of a group of investors having a long-term investment horizon and diversified portfolios, including insurers and reinsurers, pension funds and other private and public institutional investors. They are fully compatible with the FRR's SRI strategy.

### Adoption of the Carbon Disclosure Project (CDP)

Supported by the United Nations Environment Programme, the CDP is one of the most important international initiatives for the environment

and climate change. Wanting better information on companies' behaviour with regard to the environment, energy consumption and the effects of climate change, the FRR gave the CDP its backing in 2005, before the biggest 120 French companies were questioned.

### Signature of the Montreal Pledge

Signed by 35 institutional investors at the Principles of Responsible Investment conference in Montreal on 25 September 2014, it is backed up by the PRI and United Nations Environment Programme Financial Initiative (UNEP-FI). The investors who signed the Montreal Pledge have undertaken to publish the carbon footprint of their equity investments each year.

### Membership of the Portfolio Decarbonization Coalition

Launched in September 2014, this collaborative initiative aims to reduce greenhouse gas emissions by mobilising a critical mass of institutional investors committed to measuring and decarbonising their portfolios. The FRR is at the forefront of this coalition.

### Signature of the climate change declaration at the UN summit held on 23 september 2014

In signing this initiative, the FRR committed to:

- collaborate with the authorities to take measures that encourage financing of energy transition towards a low-carbon economy;
- identify and assess low-carbon investment opportunities;
- develop investors' ability to assess risks and opportunities linked to climate change, and incorporate this into investment methodologies;
- foster dialogue on the issue of climate change with companies included in the portfolios;
- publish the initiatives taken and progress made.

## LIST OF COLLABORATIVE INITIATIVES SUPPORTED BY THE FRR

The FRR continued its involvement in several collaborative initiatives in 2016, and joined two new ones.

### Managing risks linked to the supply chain in the textile industry – PRI

Despite the efforts made by companies within the sector, poor working conditions and violations of human rights are still recurring problems in the supply chain. Realising this, seven French institutional investors, including the FRR, decided to launch a joint initiative in 2014 organised by Mirova for managing risks relating to the supply chain in the textile industry.

The main aims of this were to improve transparency, map social risks, develop long-term relations with suppliers, and participate in sector initiatives.

### Climate lobbying – PRI/IIGCC

In spite of their claims to support climate policies, numerous listed companies are indirectly involved in lobbying against these very policies through their professional associations. This dialogue focuses on this inconsistency and aims to improve the transparency of listed companies' lobbying activities by demanding greater transparency from energy companies in their lobbying on issues related to global warming. This initiative has been backed by 50 investors, representing EUR 4.4 trillion in assets under management (IIGCC Initiative on EU Company Climate Lobbying).

### Human rights in the extractive sector – PRI

This project seeks to understand how policies relating to human rights are applied by extractive companies, especially in the context of partnerships with local companies or governments.

### Extractive Industries Transparency Initiative (EITI)

This initiative seeks to increase the transparency and responsibility of companies operating in extractive industries, by checking and publishing all payments made by companies, as well as all income received by governments, as a result of mineral, oil and gas extraction. In supporting the EITI, the FRR invites all companies directly or indirectly concerned by the above,

and in which it holds shares, to contribute. It also encourages those companies already committed to supporting the initiative to play an active role in its implementation.

### Statement on ESG in credit ratings (April 2016)

Alongside six rating agencies, including S&P and Moody's, and 100 international investors representing assets of USD 16 trillion, the FRR signed a joint declaration on more systematic consideration of ESG criteria in assessing issuers. This is an important stage in the integration of ESG factors in asset management.

### Global Investor Letter to the G20 (July 2016)

Along with 129 institutional investors, the FRR signed a letter addressed to the G20 leaders before a summit held in China on 4 and 5 September 2016. This letter invited the G20 to adopt measures for combatting climate change.

### Committed staff

Olivier Rousseau, member of the Management Board, sits on the steering committee of the Portfolio Decarbonization Coalition.

Anne-Marie Jourdan, the FRR's Senior Legal Counsel, is a member of the International Corporate Governance Network board of governors.

## NON-FINANCIAL RISKS TO THE PORTFOLIO

In 2008, the FRR adopted a system to monitor and prevent non-financial risks that could have an impact not just on its investments but also its reputation. Risks to the FRR may arise from companies in which it invests failing to comply with universally recognised principles, such as those of the United States Global Compact and of good governance, as well as international conventions ratified by France, in particular the Ottawa<sup>2</sup> and Oslo<sup>3</sup> Conventions.

<sup>2</sup> *Convention on the prohibition of the use, storage, production and transfer of anti-personnel mines and on their destruction.*

<sup>3</sup> *Convention on the prohibition of the use, storage, production and transfer of cluster bombs and on their destruction.*

A call for tenders in 2016 led to the selection of a new service provider to assess non-financial risks to the FRR's portfolio. Accordingly, Vigeo Eiris analysed the portfolio for the first time at the end of 2016.

**Analysis of the portfolio by region**

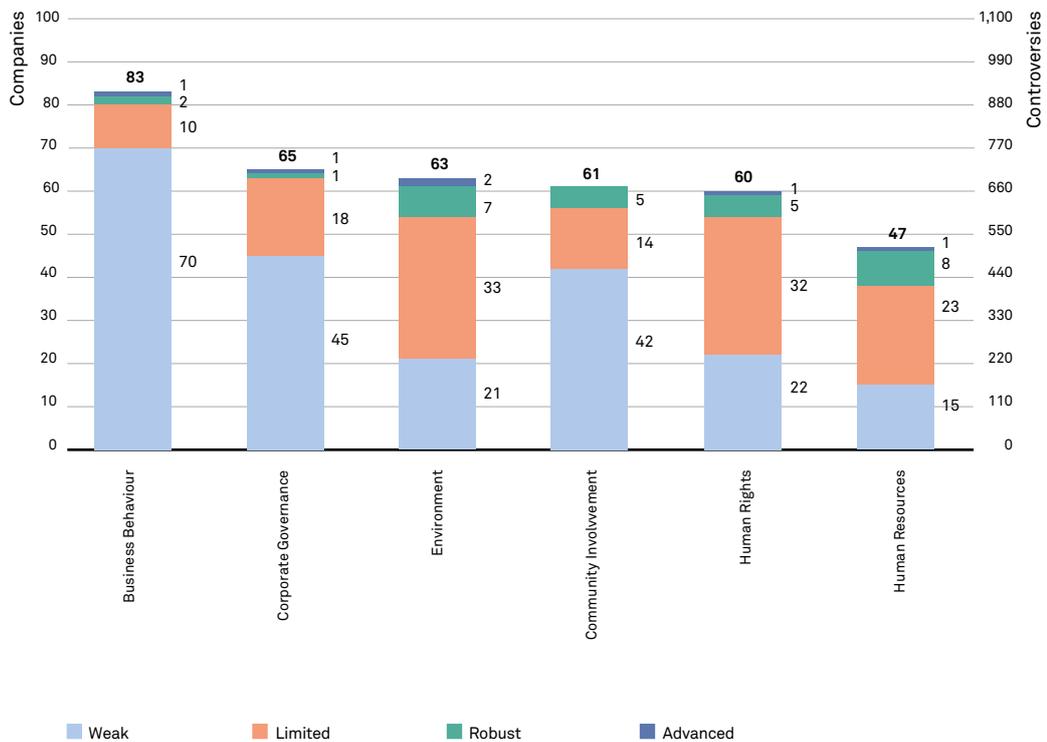
The 2,481 securities in the FRR's consolidated portfolio and covered by Vigeo Eiris's research are divided into two zones: developed countries and emerging markets. The former comprises three continental regions: North America, Europe and Asia Pacific. North America is the most strongly represented, and is also home to the heaviest concentration of controversial companies.

**Analysis by country**

All regions combined, of the 10 countries home to the largest number of highly controversial companies, nine are developed, with five in Europe (United Kingdom, France, Germany, Italy and Spain), two in North America (Canada and the United States) and two in Asia Pacific (Australia and Japan). At number nine, South Korea is the only emerging country in this ranking.

85% of the most controversial companies originate from these 10 countries. The United States is the country with the highest number of companies subject to controversy by absolute value. The presence of US companies has a substantial impact on the portfolio at a consolidated level. They account for 33% of companies, 41% of the most controversial companies, and 43% of controversies. One possible explanation for this lies in the predominant culture and existing legislation of the United States, in which citizens, alone or together, have easy, frequent access to justice. This would naturally increase the number of controversies heard in court.

→ **Analysis by ESG area for the most controversial companies**



Though they account for just 3.4% of companies in the consolidated portfolio, the 85 most controversial companies in the FRR's portfolio are responsible for 28.5% of controversies. All sectors combined, 47% of identified controversies related to Market Behaviour<sup>4</sup> and 16% to Corporate Governance. All fields combined, Chevron is the most controversial company with a total of 56 controversies, including 26 regarding the environment alone (10% of controversies identified for this). The FRR gives special consideration to this company in its investment strategy. It entered into direct correspondence with the company in 2015, and is continuing its dialogue

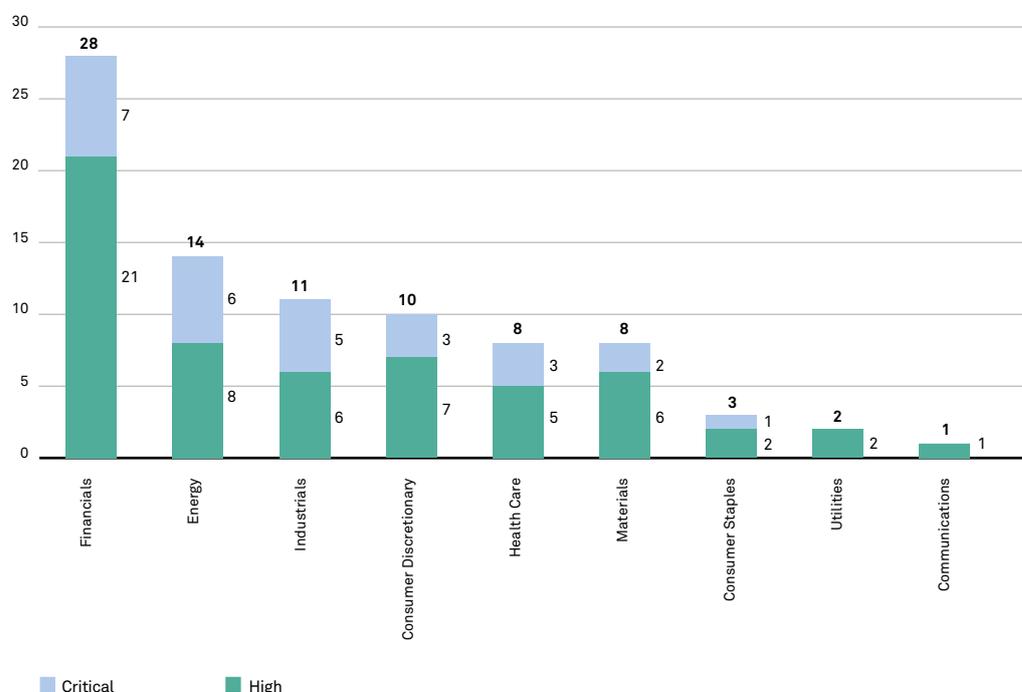
through collaborative initiatives stemming from the PRI platform as well as through its investment managers.

83 of the 85 most controversial companies were the subject of at least one controversy regarding Market Behaviour, 65 for Corporate Governance, 63 for the Environment, 61 for Societal Commitment<sup>5</sup>, 60 for Human Rights and 47 for Human Resources.

<sup>4</sup> This area includes product security, responsible disclosure to clients, responsible orientation of contracts, lasting cooperation with suppliers, consideration of environmental and social factors in the supply chain, anti-corruption measures, anti-trust measures, and the transparency and integrity of influence practices and strategies.

<sup>5</sup> This includes commitments to the economic and social development of the country in which a company is located, consideration of the societal impact of the products and services developed by the company, and the contribution to public interest causes.

### → Sector analysis of the most controversial companies in the portfolio Number and severity of corporate controversies on warning list-consolidated



Financial companies account for the most controversies within the FRR's investment universe. They are followed by the Oil & Gas sector and then Industry. Financial companies were not subject to so many controversies in the past.

Their predominance in the 2016 analysis results from both the new service provider's analysis method, and the increase in controversies within this sector over the past few years.

### Split between developed/emerging countries

The controversy divide goes against developed countries. 80 companies in this zone, or 3.98% of the companies analysed, are considered to be highly controversial.

Just five companies, or 1.07% of those analysed, in emerging countries are considered to be highly controversial. This is a quarter of the total in developed countries. The portfolio's lesser coverage of this zone largely explains the difference. Corrected for this effect, the ratio nonetheless remains 1:4.

### Exclusions linked to prohibited weapons

Each year, the FRR publishes an exclusion list approved by the Supervisory Board's Responsible Investment Committee. This list is updated during the first half of each year, and published on the FRR's website.

The FRR added two new companies to its exclusion list in 2016, and took two off. On 31 March 2016, the Responsible Investment Committee decided to add China Poly Group Corporation and S&T Dynamics to the FRR's exclusion list for their involvement in the manufacture of anti-personnel mines and cluster bombs. At the same time, the Committee decided to remove Singapore Technologies Engineering and Temasek Holdings from the list.

#### The FRR's exclusion list at 31 December 2016

Company	Country
Aeroteh	USA
Alliant Techsystems	USA
Aryt Industries	Israel
China Aerospace Science and Technology Corporation	China
China North Industries Corporation	China
China Poly Group Corporation	China
General Dynamics	USA
Hanwha Corporation	South Korea
Hellenic Defense Systems	Greece
Israel Military Industries	Israel
L-3 Communications Holdings	USA
Larsen & Toubro	India
Lockheed Martin	USA
Motovilikhinskiye Zavody	Russia
Poongsan Holdings	South Korea
Raytheon	USA
Roketsan	Turkey
S&T Dynamics	South Korea
Tata Power	India
Textron	USA

### EXERCISE OF VOTING RIGHTS

#### Overall data on votes cast by the FRR during the 2016 season

The FRR voted on 2,176 shares in 36 countries during 2016.

This represented 72,314 resolutions at 2,610 general meetings.

The FRR attended 99.4% of general meetings, being absent from just 16, which equates to 0.6% of the total.

The difficulties encountered by the FRR's managers, and any lack of vote, often resulted from the specific characteristics of local regulations, in particular the blocking of shares before a general meeting, or in the event of split

voting<sup>6</sup>. It is also worth remembering that although the investment managers are systematically required to vote on shares held in the portfolio, in the absence of a periodic “rebalancing” of indices through index-linked management, it may be that they are unable to vote on a share due to it being blocked several days before the general meeting. The main countries giving rise to rejected votes were:

- Germany (blocking share);
- Italy (blocking share);
- Norway (blocking share);
- Luxembourg (blocking share);
- Switzerland (blocking share);
- Portugal (split voting);
- Spain (another reason).

<sup>6</sup> Situation in which more than one investment manager must simultaneously vote on the same share. Only a few countries ban split voting.

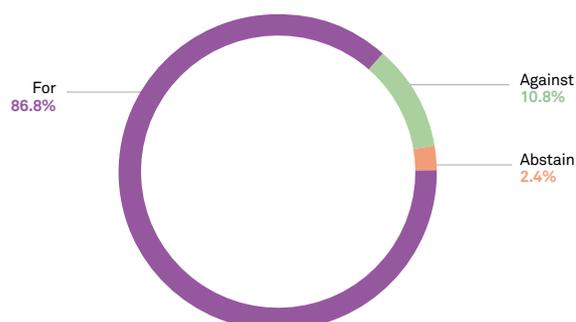
Although the FRR’s investment managers are required to avoid not voting, their attendance at general meetings is subject to the rebalancing and holding of the share in benchmark indices. This is the main reason for the high percentage of these mandates in the votes rejected.

In terms of voting breakdown, the number of votes FOR resolutions has been relatively stable over time, at 86.8% in 2016. This figure can be explained by the regional diversification of the FRR’s investments. Therefore, even if a country has a stormy general assembly season, the other countries would not necessarily be affected, which explains this relatively stable percentage of votes in favour within the FRR’s portfolio.

### → Breakdown of general meetings by geographic region



### → Breakdown of votes



### **Breakdown of the FRR's portfolio within the context of general meetings in 2016**

As an institutional investor, the FRR is invested in the world's leading markets, and therefore attends local issuers' general assemblies in the portfolio's 36 countries. Governance practices for small and mid-cap companies are different from those for large caps. This diversification of investments automatically makes it harder to compare one company with another, for example regarding the composition and diversification of the board of directors. Various trends may therefore be taken into account: at an overall portfolio level, where they are not very suggestive but reflect macro trends likely to be shared by the markets; and locally, where they are more similar.

Different trends appear if we look at the situation from a small or large-cap perspective. Disagreement over small caps is often clearer. This is because they are often less transparent, especially for determining the performance criteria that will unlock variable remuneration (award of stock options or bonus shares). This category of resolutions also happens to be the most disputed. Resolutions concerning limits on capital increases are hotly debated as small and mid-cap companies often want more flexibility. Also, regulated agreements between companies and any holding structures may seem opaque, and prompt a "no" vote from investors. Yet small and mid-cap companies are increasingly taking governance standards into account.

Some countries, such as Germany, have seen votes against pay rises become much more commonplace, with a rejection rate close to that of 2010.

Unlike small and mid caps, the average approval rate for large caps' say-on-pay resolutions was up in 2016 (CAC 40 index).

With the amendment to the Sapin 2 act aimed at limiting director pay, voting by shareholders attending the general meeting will now be binding on the board of directors. This constitutes real progress and a proper restraining influence by shareholders. We will just have to see how things pan out in 2017.

The incorporation of environmental issues also seems to be taking root, and companies are showing an increasing tendency to highlight their environmental and social responsibility. The integration of these new issues into a company's global strategy reflects the beginnings of

performance based on more long-term criteria, perhaps showing greater awareness of the risks associated with ecological and energy transition. This is another positive move worth highlighting.

The tendency towards greater equality on boards of directors also continues. Although the FRR supports this, it has not forgotten that a board of directors must be staffed by competent, available directors.

# Risk management and control

## GOVERNANCE OF RISK MANAGEMENT

Following the pensions reform of 2010, each year the Supervisory Board determines the FRR's strategic allocation, which relies on an investment model that provides for a high level of liability hedging. The FRR's investments are mainly implemented via mandates awarded to investment managers. The FRR is also authorised to invest up to 20% of its assets directly in UCIs, excluding money market UCIs. Every month, a Risk Committee examines the performance of the portfolios and the Fund, as well as changes in the main financial and operational risks. This committee also examines investments in new asset classes and defines the applicable risk frameworks. It is chaired by a member of the Management Board and organised by the risk management teams. In general it also ensures that a risk management culture is propagated within the FRR. The Risk Committee's files are then reviewed and analysed at Management Board meetings.

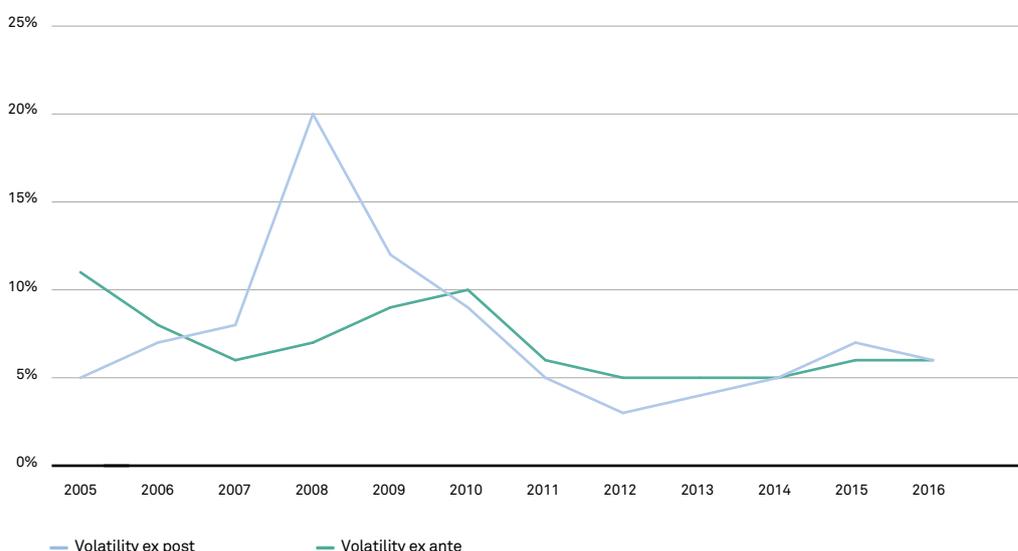
The Performance and Financial Risk Department is also invited to the FRR's various specialised committees (Investment Strategy Committee, Manager Selection Committee) and, if so required, issues an opinion. It also sits on various internal bodies (Tactical Investment Committee, Strategic Allocation Steering Committee, etc.). Lastly, every year it issues an opinion on the strategic allocation review, which it presents to the Supervisory Board meeting at which this review is conducted.

## FINANCIAL RISKS

### Asset and liability management risk

This is the risk that the FRR's strategic allocation is not appropriate for the funding of its liabilities to the CADES and the CNAV, which are the Fund's two identified beneficiaries. The FRR has to pay EUR 2.1 billion to the CADES every year until 2024, and to repay the CNIEG balance to the CNAV from 2020. This balance amounted to EUR 4.82 billion at the end of 2016 and its

## → The portfolio's actual annual volatility



amount will vary according to the FRR's performance. Over the year, the surplus increased by EUR 1.17 billion, largely due to the performance assets, and at 31 December 2016 amounted to EUR 14.27 billion (after revaluation of the CNIEG balance), i.e. additional performance of 8.96% over 2016. This is an indicator of the FRR's ability to meet its liabilities commitments and create value for the State.

### The portfolio's market risks

The overall portfolio's annualised volatility remains low by the FRR's past standards, whether measured ex ante (the portfolio's projected volatility) or ex post (actual volatility).

The ex-post annual volatility of the value of the FRR's assets was 6.28% in 2016 (versus 6.85% in 2015) with an annual return of 4.97% (versus 3.08% in 2015). Ex-ante volatility was 6.5% at 31 December 2016, compared with 6.27% one year earlier.

The risk of an unfavourable change in the value of the portfolio (a loss) is assessed over a short-term horizon of one year; this is the time frame of the annual strategic asset allocation review in consultation with the FRR's governance

The average potential loss over a one-year horizon in 1% of the estimated worst-case scenarios, measured by a Conditional Value-at-Risk (CVaR) of 99% over one year, is 16.4% of the

FRR's assets (versus 14.3% at end 2015), i.e. EUR 5.92 billion. This increase can be explained by the higher weighting of risky assets in 2016, as well as a better assessment of financial risks to options following the reintroduction of MSCI's RiskManager application during 2016.

### Risk on performance assets

Performance assets (mainly equities) present the most significant risk factor in CVaR. Their contribution to the average potential loss linked to changes in prices in 1% of the worst-case scenarios is 15.9% of the FRR's assets, i.e. EUR 5.73 billion (compared with 13.5% at the end of 2015).

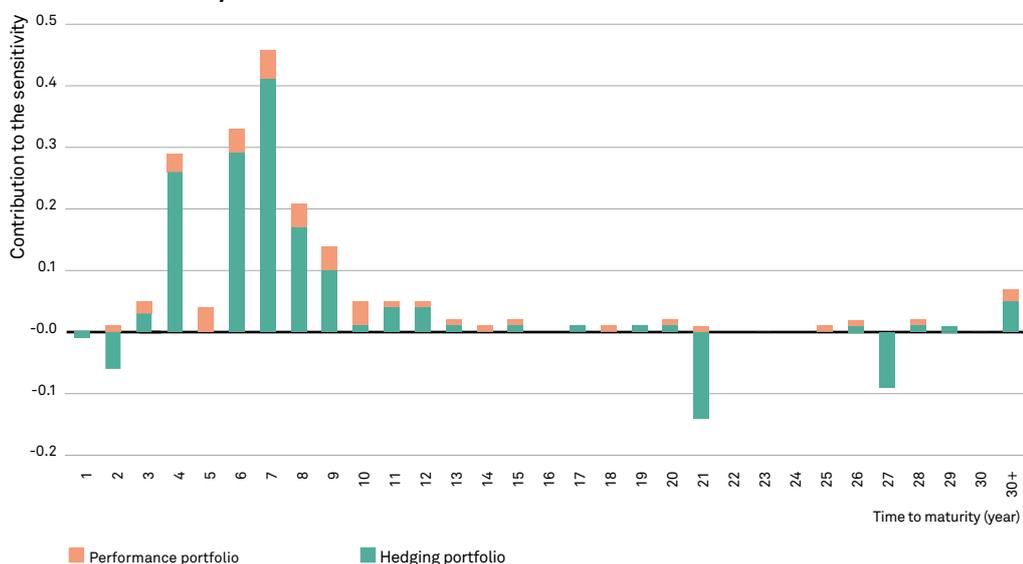
### Interest rate risk

At the end of the year, the average potential loss linked to yield curve changes, measured by a one-year CVaR of 99%, was 0.6% of the FRR's hedging assets, i.e. EUR 0.2 billion on the market value of the FRR's portfolio (compared with 0.8% at the end of 2015). This decrease in risk resulted from a reduction in the relative weighting of fixed income assets in the FRR's portfolio.

The FRR's portfolio's overall modified duration fell from 2.48 at the end of 2015 to 1.65<sup>1</sup> at the end of 2016. This means that for a uniform rise

<sup>1</sup> Including fixed income assets in the performance component.

## → Contributions to the portfolio's modified duration by asset class and maturity



of 100 bps across all yield curves, the value of the FRR's portfolio would now decrease by just 1.65%, i.e. around EUR 0.59 billion. This level of modified duration takes into account the FRR's reduced exposure to interest rate risk on investment grade credit through the introduction of tactical hedging.

Symmetrically, a 100 bp rise in interest rates would reduce the FRR's balance sheet liabilities by 3.81% through a fall in the value of fixed

income commitments. Modified duration had been 4.26 at the end of 2015, and will continue to drop as the number of payments due to the CADES falls.

### The portfolio's credit risk

The table below shows a breakdown by rating of the FRR's fixed income assets at the end of 2015 and 2016. The bulk of these assets are invested in investment grade securities.

	AAA	AA	A	BBB	<BBB-and unrated
31/12/2015	1%	40%	23%	27%	8%
31/12/2016	1%	31%	27%	28%	13%

The overall quality of the FRR's credit portfolio in 2016 was slightly lower than in 2015, as 87% of it was invested in investment grade securities, as opposed to 91% in 2015. This change on 2015 was due to:

- the lower weighting of short-term OATs in the FRR's assets. Rated AA, they have been replaced with debt securities issued by national and international banks, generally rated A;
- the search for more yield through an increase in less well rated investments (within new investment grade credit mandates, which allow for marginal diversification outside of this category) or unrated investments in new private debt funds used to finance the economy.

### Counterparty risk

Counterparty risk is the risk linked to trading by investment managers in over-the-counter forward financial instruments with bank counterparties (swaps and currency forwards). It has been sharply reduced through the introduction of various measures: minimum rating of authorised counterparties, margin calls, use of CLS<sup>2</sup> Bank's clearing services for foreign exchange, limits per counterparty. At the end of 2016, the FRR's overall exposure to counterparty risk was EUR 46 million, with changes dependent on variations in the EUR/USD exchange rate.

### Issuer risk diversification ratios

The regulations applicable to the FRR lay down specific risk diversification ratios with regard to issuers of equities and debt securities. In addition to these ratios, the FRR has applied, since 2011, a maximum internal exposure limit for a single issuer or OTC counterparty corresponding to 3.5% of the FRR's net assets, excluding sovereign issuers for which specific limits have been set depending on the issuer's rating. Since a ruling on 24 May 2016, the application of regulatory limits on issuer or counterparty concentration also take into account positions held indirectly through undertakings for collective investment.

### Currency risk

The FRR's portfolio is partly invested in foreign currencies. In the strategic allocation, performance assets' currency risk is theoretically 90% hedged, excluding assets denominated in emerging currencies, for which the exchange rate is an intrinsic performance factor. Nevertheless, the FRR has some flexibility in its level of hedging, provided that its total currency risk exposure remains below 20% of its total assets (regulatory limit). In 2016, hedging of exposure to developed market currencies excluding the euro (chiefly the USD) increased relative to 2015, and returned to the usual 90% level after being substantially lower from April 2014. The currency risk of hedging assets has been fully hedged since 2011.

<sup>2</sup> Continuous Linked Settlement: clearing and settlement system that reduces counterparty risk.

### Risks to the performance tracking error for the FRR and its investment managers relative to their benchmarks

The volatility of deviations between the performances of the strategic allocation and the real allocation is measured by tracking error (TE) type indicators. This concept is defined as the annualised standard deviation in performance between the real portfolio and the benchmark allocation target.

On the whole, the investment managers all respected the TE limits set in certain management mandates in 2016, albeit with a few minor breaches, mainly when introducing new mandates.

At the end of 2016, the ex-ante TE between the FRR's real portfolio and the strategic allocation was 93 bps. This takes into account the effects of selection (active management of fund managers, choice of indices different from the strategic allocation, etc.) and flexible management (tactical over or underexposure of asset classes, and adjustments to interest rate and currency risk hedging).

As well as allowing new investment grade credit mandate managers to diversify into lower rated issuers, the FRR established a framework for their management by setting a new limit relative to their benchmark. This is based on measuring the Duration Times Spread (DTS) of all securities in their portfolio, reflecting the level of credit risk taken through two expressions: the amount received by investors to reward the risk taken (the spread or risk premium); and the length of exposure to this risk (the duration). A comparison of each manager's portfolio DTS against the benchmark (limited to investment grade securities) can be used to assess and limit credit exposure relative to the benchmark.

### Risk on financial contracts, in particular derivatives

To enable the FRR to invest securely in forward financial instruments, the regulatory authority decided in 2001 to subject the FRR to a legal framework similar to that applicable to coordinated UCIs.

The FRR applies the risk monitoring principles for transactions in financial instruments set out in the AMF regulation<sup>3</sup> of November 2011 on the

method for calculating the overall risk of UCIs. These principles specify two calculation methods implemented by the FRR:

- a method of calculating the commitment under a financial contract for non-complex derivatives;
- a method based on VaR calculations in the case of the large-scale use of complex financial contracts.

The FRR uses the commitment method to calculate the overall risk. This method consists in calculating the actual commitment of the financial contracts in relation to the Fund's total net value. The value of the commitment at the end of 2016 was 25.86% of the fund's value, as compared to 18.40% at the end of 2015. It is therefore well below the regulatory 100% limit, even including the systematic option-based hedging designed to control the volatility of some of the equities held by the FRR (as initially provided for in the 2015 strategic allocation).

### Liquidity risk of assets under management

A holding limit on UCIs was introduced in the ruling of 24 May 2016, which set this at 20% (previously an internal limit).

The FRR also manages a holding limit on companies' equity: the FRR may not hold more than 3% of the shares of a single issuer, with the exception of the unlisted real estate asset and private equity portfolios.

### OPERATIONAL RISKS

This is the risk of loss resulting from inadequate or failed internal processes or external events, regardless of whether they are intentional, accidental or natural.

Internal and external operational incidents are catalogued and analysed as and when they occur. They are presented and monitored at Risk Committee meetings (corrective action, compensation, improvements). They are also monitored regularly by the Audit Committee. In this way, the FRR keeps track of operational incidents and regulatory sanctions affecting its providers of delegated management services, as well as its core service providers.

In fulfilling its role, it is important that the FRR should be able to carry out its main activities without disruption in the event of a serious incident such as the collapse of a supplier, flooding

<sup>3</sup> *Autorité des marchés financiers (French Financial markets Authority).*

of the Seine, fire or epidemic. The analysis of the financial and non-financial consequences and impact of the various scenarios that could potentially compromise the FRR's business continuity was updated in 2016. The FRR's different credit management and business continuity measures were tested during the EU Sequana exercise in 2016, and when the Seine flooded in June 2016.

The FRR's operational risk management system is also based on regular self-appraisals of risks to update risk mapping and identify residual risks. The overhaul of key processes as and when necessary (precise description of roles and responsibilities, and structuring of checks on the various lines of defence) also helps to reduce operational risks upstream.

## COMPLIANCE

### Ethics

The FRR ensures that its employees comply with a very strict ethical framework at all levels.

The ethical framework applicable to the three members of the Management Board is governed by the French Social Security Code. Moreover, all staff are bound by a code of conduct that lays down the rules for professional and personal behaviour. Ethical, money laundering and terrorist financing risks are subject to specific due diligence checks as part of the investment manager selection process.

### Investment and portfolio compliance

Compliance risk is the risk associated with non-compliance with legislative, regulatory or internal provisions.

Ensuring compliance is an essential part of the internal control system. As such, the FRR:

- monitors managers' fulfilment of their contractual obligations each day;
- checks that the investments made through UCIs and debt funds comply with internal rules;
- ensures that its regulatory ratios are complied with (diversification between issuers, holding limit on the capital of companies in the portfolio, holding limit on UCIs, exposure to currency risk, exposure to collective funds, various commitment ratios).

An analysis of any cases of non-compliance, impact assessments, corrective measures and possible compensation claims are presented and monitored at Risk Committee meetings.

# Organisation and costs

## ORGANISATION AND HUMAN RESOURCES

After significantly reducing its maximum headcount from 56 in 2010 to 48 in 2014, then stabilising it in 2015 by aiming to promote internally, the FRR further strengthened its organisation in 2016 to be able to fulfil its role, recruiting experienced staff.

Following the decision in August 2015 to direct EUR 2 billion into financing the French economy, the Management Board, during budget discussions, expressed a desire to strengthen the FRR's skill set by creating a specialist private equity position in 2016. This meant further recruitment, bringing the FRR's payroll to 49 permanent employees, 41 of whom are on Caisse des Dépôts contracts.

The FRR will continue its efforts to secure processes and adapt IT and human resources over the coming years, while keeping control of spending.

The FRR further strengthened its organisation in 2016 to be able to fulfil its role, recruiting experienced staff.

## THE FRR'S COSTS

Total expenses for 2016 amounted to EUR 63 million, down 47% from EUR 119 million in 2015. This sharp drop results from the decrease in management fees, including fixed and variable charges, fees for the overlay mandate, securities expenses and technical charges on VAT, which amounted to EUR 39.2 million, compared with EUR 95.4 million in 2015. Indeed, although fixed costs rose a little, variable costs recorded in 2016 were down sharply under the combined influence of lower commissions being paid in 2016, and the reversal of a provision booked in 2015, which ultimately exceeded the commission paid. 2016 also saw an increase in the cost of the overlay mandate (+59%) due to the higher level of cash management and the announcement of an increase in the service provider's prices.

In total, management fees (EUR 39.2 million out of operating costs of EUR 63 million) accounted for 62% of all costs, compared with 80% in 2015 (EUR 95.4 million out of EUR 119 million).

Custody fees amounted to around EUR 10 million over the year.

Lastly, other costs, within a restrictive budget (payroll, IT and other overheads), were down to EUR 14.0 million, from EUR 14.4 million in 2015. They equate to less than four basis points of the assets under management.

# Governance

## SUPERVISORY BOARD

at 31 March 2017

### CHAIRMAN **Alain Vasselle**

### MEMBERS OF THE NATIONAL ASSEMBLY

Michel Issindou, *alternate* Charles de Courson

Bérangère Poletti, *alternate* Gisèle Biemouret

### MEMBERS OF THE SENATE

Francis Delattre, *alternate* Dominique de Legge

Jean-Marc Gabouty, *alternate* Georges Labazee

### QUALIFIED PERSON

Jean-Louis Beffa, Vice-Chairman  
of the Supervisory Board

### REPRESENTATIVES OF SOCIAL SECURITY BENEFICIARIES APPOINTED BY NATIONALLY REPRESENTATIVE TRADE UNIONS

#### Confédération générale du travail

Jean-Christophe Le Duigou,  
Vice-Chairman of the Supervisor,  
*alternate* Pierre-Yves Chanu

#### Confédération générale du travail – Force ouvrière

Philippe Soubirous, *alternate* Philippe Pihet

#### Confédération française démocratique du travail

Frédéric Sève, *alternate* Virginie Aubin

#### Confédération française des travailleurs chrétiens

Isabelle Sancerni, *alternate* Pierre Alexis Van Den  
Boomgaerde

#### Confédération française de l'encadrement – CGC

Pierre Roger, *alternate* Marie-Christine Oberst

### REPRESENTATIVES OF SELF-EMPLOYED AND INDEPENDENT WORKERS

#### Mouvement des entreprises de France

Arnaud Chneiweiss, *alternate* Éric Delabrière  
Delphine Benda, *alternate* Émilie Martinez  
Alain Leclair, *alternate* Jean-Claude Guéry

#### Confédération générale des PME

Alain Duffoux, *alternate* Georges Tissié

#### Union professionnelle artisanale

Catherine Foucher, *alternate* Michel Bessy

### REPRESENTATIVES OF THE MINISTER FOR SOCIAL SECURITY APPOINTED BY ORDER OF THE MINISTER FOR SOCIAL SECURITY

Thomas Fatome, *alternate* Jonathan Bosredon

Morgan Delaye, *alternate* David Hoyrup

### REPRESENTATIVE OF THE MINISTER FOR THE ECONOMY, FINANCE AND INDUSTRY APPOINTED BY ORDER OF THE MINISTER FOR THE ECONOMY, FINANCE AND INDUSTRY

Corso Bavagnoli, *alternate* Thomas Groh

### REPRESENTATIVE OF THE MINISTER FOR THE BUDGET, APPOINTED BY ORDER OF THE MINISTER FOR THE BUDGET

Denis Morin, *alternate* Jean-François Juery

## MANAGEMENT BOARD

### CHAIRMAN **Pierre-René Lemas**

### MEMBERS OF THE MANAGEMENT BOARD

Yves Chevalier

Olivier Rousseau

## MANAGER SELECTION COMMITTEE

### CHAIRMAN **Olivier Rousseau**

### MEMBERS OF THE MANAGER SELECTION COMMITTEE

Catherine Guinefort, former fund manager with  
an asset management company

Thierry Coste, Member of the College of the ACPR  
(Autorité de contrôle prudentiel et de résolution)

Jean-François Marie, former director of a finance  
company

Marcel Nicolai, former managing partner of an  
asset management company

# Management structure chart\*

## Supervisory Board

Chairman: **Alain Vasselle**  
 Vice-Chairmen: Jean-Louis Beffa,  
 Jean-Christophe Le Duigou

## Management Board



Chairman:  
**Pierre-René Lemas**



Member:  
**Yves Chevalier**



Member:  
**Olivier Rousseau**

Assistant: Brigitte Dahan

### MANAGER SELECTION COMMITTEE

Président : **Olivier Rousseau**



Member:  
**Thierry Coste**



Member:  
**Catherine Guinefort**



Member:  
**Jean-François Marie**



Member:  
**Marcel Nicolai**

### INTERNAL ACCOUNTING



**Patrick Hédé**

Thierry Tacinelli,  
 Marie-Christine Huguet

\* At 31 March 2017.

## Operations and risk division

 <p><b>Yann Derrien</b> Assistants: Martine Carton, Nathalie Lalande</p>	
<p><b>HUMAN RESOURCES AND MANAGEMENT CONTROL DEPARTMENT</b></p>  <p><b>Jérôme Houbine</b> Nicolas Umbach-Bascone, Romaric Bolzan, Natacha Pézeron</p>	<p><b>INFORMATION SYSTEMS, ORGANISATION AND PROJECTS</b></p>  <p><b>Sabine Botras</b> Catherine Sanglar, N...</p>
<p><b>FINANCIAL RISK MANAGEMENT AND PERFORMANCE DEPARTMENT</b></p>  <p><b>Pierre Leygue</b> Abdelouahid Akarkoub, Frédéric dall'Armellina, Antoine Dupaquis, Joanne Letendrie-Garrick, Kevin Mercier, Jérôme Nedelec, N...</p>	<p><b>MIDDLE OFFICE DEPARTMENT</b></p>  <p><b>Bernard Pariset</b> <b>Operational Supervision of Mandates</b> Duc Tien Bui Van, David Marques, N... <b>Internal Accounting Controls</b> Mordi Kadosch, Alain Brivet</p>
<p><b>OPERATIONAL RISKS</b></p>  <p><b>Yann Derrien</b> and another member of staff</p>	

## Finance division

 <p><b>Salwa Boussoukaya-Nasr</b> Assistant: Karine Bocquet</p>	
<p><b>DELEGATED MANAGEMENT DEPARTMENT</b></p>  <p><b>Cristel Haution Sarac</b> <b>Manager Selection</b> Hervé Seignol, Charles-Antoine Poupel <b>Responsible Investment</b> Mickaël Hellier <b>Mandate Supervision</b> Vincent Cordier, Victoire Costa de Beauregard, David de Souza, Patricia Glon, François Tirmarche, Jeremy Willems</p>	<p><b>ASSET ALLOCATION DEPARTMENT</b></p>  <p><b>Pierre-Olivier Billard</b> <b>Deputy</b> Christophe Roger Hervé Amourda, Pauline Mercier, Johann Tourne, N...</p>

## Legal and communication department

 <p><b>Anne-Marie Jourdan</b> Marie-Catherine duchamp, Alexa Sudici, Alexandre Van Ooteghem</p>	
--	--

# Financial information

2016 Annual report

# Financial and accounting summary

In 2016 the FRR recorded a profit of EUR 746 million, following a profit of EUR 1.5 billion in 2015.

The French Social Security Financing Law for 2011 provides that with effect from 1 January 2011 the FRR must pay EUR 2.1 billion to the Caisse d'Amortissement de la Dette Sociale (CADES) every year until 2024.

The fund paid this amount to the CADES on 25 April 2016, recognising an equivalent reduction in its permanent capital.

However, the 2016 financial statements reflect the FRR's financial solidity, just as they did in 2015 and 2014.

The CNIEG's contribution is valued at EUR 4.817 billion, an increase of EUR 236 million. Financial assets, transferable securities and available funds amount to EUR 35.562 billion.

The 2016 financial result showed a profit of EUR 810 million, following a profit of EUR 1.619 billion in 2015.

The same applies to the valuation differences recognised in the balance sheet, which reflect the difference between the acquisition value of assets and their market value at 31 December. These differences, which were already positive in 2015 at EUR 2.949 billion, amounted to EUR 3.725 billion at 31 December 2016, up EUR 776 million, offsetting the EUR 809 million fall in financial income between the two periods.

The 2015 financial result showed a profit of EUR 1.619 billion, following a profit of EUR 1.504 billion in 2014.

An analysis of the financial result shows the contribution of each product or cost category to the overall result for the financial year.

Income on transferable securities amounted to EUR 700.3 million, versus EUR 790.3 million in 2015.

Foreign exchange transactions generated a net loss of EUR 547.7 million. The loss recognised at 31 December 2015 was EUR 538.48 million.

Sales of transferable securities generated a surplus of EUR 749.7 million, compared with EUR 1.405 billion in 2015.

Lastly, financial futures recorded a net loss of EUR 22.6 million, as opposed to a gain of EUR 118.4 million in 2015.

**The 2016 financial result showed a profit of EUR 810 million, following a profit of EUR 1.619 billion in 2015.**

# Balance sheet at 31 December 2016

ASSETS – in euros	31/12/2016		31/12/2015	
	Gross	Depreciation and amortisation	Net	Net
<b>FIXED ASSETS</b>				
<b>Intangible assets</b>				
Other intangible assets	4,806,316.44	-3,537,204.77	1,269,111.67	1,822,239.42
<b>Tangible fixed assets</b>				
Plant and equipment	12,712.31	-12,712.31	–	–
<b>TOTAL I</b>	<b>4,819,028.75</b>	<b>-3,549,917.08</b>	<b>1,269,111.67</b>	<b>1,822,239.42</b>
<b>CURRENT ASSETS</b>				
<b>Receivables from operations</b>	–	–	–	1,500.00
<b>Sundry receivables</b>				
Financial instruments	26,350,019.02	–	26,350,019.02	14,413,959.96
Foreign exchange transactions	9,762,980,950.33	–	9,762,980,950.33	9,641,576,176.57
Forward financial instruments	477,225,437.08	–	477,225,437.08	568,205,050.11
<b>Financial instruments</b>				
Equities and similar securities	10,037,299,808.04	–	10,037,299,808.04	9,354,008,790.22
Bonds and similar securities	14,950,847,544.06	–	14,950,847,544.06	16,642,350,593.55
Transferable debt securities	1,523,201,834.23	–	1,523,201,834.23	920,965,095.75
Undertakings for Collective Investment	7,954,314,122.32	–	7,954,314,122.32	5,869,985,081.41
<b>Cash</b>	1,096,286,672.11	–	1,096,286,672.11	3,405,472,259.75
<b>Prepaid expenses</b>	142,088.05	–	142,088.05	–
<b>TOTAL II</b>	<b>45,828,506,387.19</b>	<b>–</b>	<b>45,828,648,475.24</b>	<b>46,416,978,507.32</b>
<b>GRAND TOTAL (I + II)</b>	<b>45,833,325,415.94</b>	<b>-3,549,917.08</b>	<b>45,829,917,586.91</b>	<b>46,418,800,746.74</b>

<b>LIABILITIES</b> – in euros	<b>31/12/2016</b>	<b>31/12/2015</b>
<b>EQUITY CAPITAL</b>		
<b>Allocations</b>	2,870,680,121.97	2,870,680,121.9
<b>Reserves</b>	6,996,598,240.48	5,496,133,780.00
<b>Valuation difference</b>	3,725,577,877.32	2,949,210,368.15
<b>Profit/(loss) for the financial year</b>	746,614,649.95	1,500,464,460.48
<b>TOTAL I</b>	<b>14,339,470,889.72</b>	<b>12,816,488,730.60</b>
<b>PAYABLES</b>		
<b>Long-term borrowings</b>		
Extraordinary contribution to CNIEG	4,817,195,728.53	4,581,594,321.66
CADES debt - 1 year	2,100,000,000.00	2,100,000,000.00
CADES debt + 1 year	14,700,000,000.00	16,800,000,000.00
<b>Payables from operations</b>	46,092,098.08	79,437,158.89
<b>Sundry payables</b>		
Financial instruments	3,536,696.07	11,123,928.00
Foreign exchange transactions	9,808,627,457.95	9,995,042,684.15
Forward financial instruments	14,994,716.56	34,331,248.99
<b>Prepaid income</b>	–	782,674.45
<b>TOTAL II</b>	<b>31,490,446,697.19</b>	<b>33,602,312,016.14</b>
<b>GRAND TOTAL (I + II)</b>	<b>45,829,917,586.91</b>	<b>46,418,800,746.74</b>

# Income statement at 31 December 2016

<b>EXPENSES</b> – in euros	<b>31/12/2016</b>	<b>31/12/2015</b>
<b>Outside services</b>	<b>61,605,852.48</b>	<b>117,648,637.20</b>
Remuneration – management companies	35,767,454.89	
CDC Administrative management	21,631,451.62	
Others	4,206,945.97	
<b>Taxes, duties and similar</b>	<b>85,075.91</b>	<b>84,171.54</b>
Tax on wages	85,075.91	
<b>Staff expenses</b>	<b>937,017.71</b>	<b>949,040.06</b>
Wages and salaries	684,743.01	
Social security contributions	252,274.70	
<b>Depreciation allowance</b>	<b>553,127.75</b>	<b>520,939.72</b>
Depreciation allowance	553,127.75	
<b>TOTAL OPERATING EXPENSES</b>	<b>63,181,073.85</b>	<b>119,202,788.52</b>
<b>FINANCIAL COSTS</b>	<b>2,635,318,318.99</b>	<b>2,530,257,662.16</b>
Forex losses	1,051,474,064.89	
Expenses on forward financial instruments	702,183,648.23	
Costs relating to sales of financial instruments	437,962,818.07	
Expenses on options	324,365,370.82	
Other financial expenses	3,833,058.77	
Allocation of share of income to CNIEG	115,499,358.21	
<b>TOTAL FINANCIAL COSTS</b>	<b>2,635,318,318.99</b>	<b>2,530,257,662.16</b>
Extraordinary expenses on management operations	–	–
<b>TOTAL EXTRAORDINARY EXPENSES</b>	<b>–</b>	<b>–</b>
<b>Profit/(loss) for the financial year</b>	<b>746,614,649.95</b>	<b>1,500,464,460.48</b>
<b>GRAND TOTAL</b>	<b>3,445,114,042.79</b>	<b>4,149,924,911.16</b>
<b>FINANCIAL INCOME</b> – in euros	<b>2016</b>	<b>2015</b>
Income	700,284,908.31	
Forex gains	503,754,589.74	
Income from forward financial instruments	679,628,806.36	
Proceeds of sales of financial instruments	1,187,734,064.03	
Income on options	356,937,645.19	
Other financial income	16,750,581.75	
<b>TOTAL FINANCIAL INCOME</b>	<b>3,445,090,595.38</b>	<b>4,149,873,898.48</b>
Extraordinary income on management operations	23,447.41	
<b>TOTAL EXTRAORDINARY INCOME</b>	<b>23,447.41</b>	<b>51,012.68</b>
<b>GRAND TOTAL</b>	<b>3,445,114,042.79</b>	<b>4,149,924,911.16</b>

# Notes to the annual financial statements at 31 December 2016

## ACCOUNTING METHODS AND RULES USED

The FRR's financial statements are prepared using generally applicable principles based on the single chart of accounts for social security organisations and opinion no. 200307 of 24 June 2003 of the CNC, as amended by opinion no. 200810 of 5 June 2008.

General accounting conventions have been applied in compliance with the principles of prudence, consistency, sincerity and fairness of view in accordance with the following underlying assumptions: going concern, consistency of accounting methods and independence of financial years.

As the FRR's accounts are stated in euro, the foreign currency positions of the FRR's mandates are valued using their equivalent value calculated using WM/Reuters closing spot rates.

Transactions are recorded on the trading date. Since 30 November 2006, transactions involving transferable securities have been booked with charges included, in accordance with the CNC's opinion of 31 March 2006.

The weighted average cost price rule (WACP) is applied for realised capital gains or losses on securities, and the FIFO (first in first out) rule is applied to futures.

Asset values are calculated on the basis of positions held on Friday evening or the last TARGET business day of the week, and on the last TARGET business day of the month. The default price is the closing price on the issuer's benchmark market, on a case by case basis on the principal market of listing.

If no price is available on the valuation day, the asset is valued using the last known price, or in accordance with a predetermined procedure if using an old price.

Bonds are valued on the principle of a Bid quotation based on prices obtained from various financial services providers.

Interest accrued at the time of purchase or sale, as well as end of period interest, is expressed by reference to the value date. This accounting method is linked to the recognition of transactions from the trading date.

BTF and BTAN securities are valued using the interest rate published by the Banque de France on the valuation day.

Transferable debt securities and similar securities that are not traded in large volumes are valued using an actuarial method based on a zero coupon rate of the same maturity increased, where applicable, by an issuer spread.

UCITS are valued using the last known net asset value. ETFs are valued using the last price quoted.

Private equity funds are valued using the last valuations provided by the fund managers.

Securitisation entities are valued on the basis of the most recent valuations indicated by the managers if they are below their purchase cost, or at par if higher.

Forward financial instruments traded on regulated or similar markets and associated liabilities are valued using the settlement price.

Forward currency positions are valued both by linear discounting of the initial contango/backwardation amount and by valuing the currency position using WM/Reuters closing spot rates.

Swaps are valued using the prices provided by the counterparty, under the control of the fund manager, and are also subject to the various control levels put in place by the FRR.

Unrealised gains and losses and unrealised exchange differences are recognised in the balance sheet as valuation differences, and do not affect the Fund's result.

Withholding tax recovered is recognised as and when received.

Realised capital gains and losses and definitive exchange differences are recognised in the expenses and income accounts.

Tangible assets are depreciated on a straight-line basis over three years.

Intangible assets, linked mainly to the right of use of the SPIRRIS software and related maintenance, are amortised on a straight-line basis over five years.

The extraordinary, flat-rate, full-discharge contribution mentioned in Article 19 of law no. 2004803 of 9 August 2004 and paid to the CNIEG by the FRR in accordance with a decision of the Haut Conseil Interministériel de la comptabilité des organismes de sécurité sociale dated 20 April 2005, is recognised in the FRR's accounts as a debt.

In accordance with amendment no. 1 of 20 March 2009 to the agreement of 12 July 2005, entered into by the FRR and the CNAVTS, the FRR henceforth shall determine the share attributable to the balance on an annual basis.

The fees paid to management companies are based on a fee scale that assigns a number of basis points per tranche of assets under management.

Some mandates receive variable performance fees in the case of outperformance, defined as the positive mathematical difference between the performance of the portfolio and that of its benchmark. Depending on the mandate, these fees are paid annually and/or at the end of the investment mandate provided that the outperformance is confirmed over the relevant periods and subject to the contractually defined limits.

## PRESENTATION OF THE FINANCIAL STATEMENTS

For ease of reading, the financial statements have been organised in a number of sections:

### Balance sheet

The various items are presented as net values, taking into account the depreciations applied for fixed assets and valuation differences for financial assets and liabilities.

“Receivables” and “Payables on financial instruments” comprise transactions in transferable securities by investment companies for which settlement is pending (matured coupons, purchases and sales awaiting settlement).

“Receivables” and “Payables on forex transactions” comprise current foreign exchange transactions, whether spot or forward.

“Receivables” and “Payables on forward financial instruments” comprise current transactions

related to futures (margins payable or receivable, security deposits), option premiums and swaps (payable or receivable flows).

“Financial instruments” comprise four categories: equities and equity equivalents, bonds and bond equivalents, transferable debt securities, undertakings for collective investment, including venture capital funds and securitisation entities. They are shown in the balance sheet at their market value, taking into account coupons accrued on bonds, transferable debt securities and securitisation entities.

“Cash” comprises all the FRR's cash accounts in euro and foreign currencies (valued at their price on the last day of the financial year), and interest accrued on these interest-bearing current and deposit accounts.

### “Equity capital” comprises:

- “Allocations” corresponding to the balance of employers' contributions received by the FRR since its inception in 1999, less the sums allocated to the CADES.
- “Reserves” representing the accumulated income generated by the Fund since its inception, less the sums allocated to the CADES debt.
- “Valuation difference” representing unrealised capital gains and losses recognised on all assets at the closing date.
- Profit/(loss) for the financial year.

### The “Extraordinary contribution to CNIEG” comprises:

- the contribution paid to the FRR by the Caisse Nationale des Industries Electriques et Gazières (CNIEG) as part of Article 19 of law no. 2004803 of 9 August 2004, whose conditions of payment to the FRR by the CNIEG were laid down by order of the Minister for Social Solidarity, Health and Family on 31 January 2005. This order set the sum that had been paid to the FRR by the CNIEG during the second quarter of 2005 at EUR 3,060,000,000;
- interest paid to the FRR by the CNIEG in accordance with the order of 31 January 2005;
- the share of the income for the financial year, net of charges, corresponding to the allocation of the share of the FRR's income to the balance paid by the CNIEG;
- the share of unrealised capital gains or losses on the closing date.

The “CADES debt” is shown as “debt - 1 year” and “debt + 1 year”.

## ADDITIONAL INFORMATION RELATING TO ASSETS

### CURRENT ASSETS

Table of fixed assets and depreciation – in euros

Headings and items	Fixed assets			Depreciation and amortisation					Net book value
	Gross book value – opening balance	Increase	Decrease	Gross book value – closing balance	Accumulated values – opening balance	Depreciation/ amortisation charges	Decrease	Accumulated values – closing balance	
Intangible assets	4,806,316.44	232,212.00	-232,212.00	4,806,316.44	-2,984,077.42	-553,127.75	–	-3,537,205.17	1,269,111.67
<b>TOTAL I</b>	<b>4,806,316.44</b>	<b>232,212.00</b>	<b>-232,212.00</b>	<b>4,806,316.44</b>	<b>-2,984,077.42</b>	<b>-553,127.75</b>	<b>–</b>	<b>-3,537,205.17</b>	<b>1,269,111.67</b>
Tangible fixed assets	12,712.31	–	–	12,712.31	-12,712.31	–	–	-12,712.31	–
<b>TOTAL II</b>	<b>12,712.31</b>	<b>–</b>	<b>–</b>	<b>12,712.31</b>	<b>-12,712.31</b>	<b>–</b>	<b>–</b>	<b>-12,712.31</b>	<b>–</b>
<b>GRAND TOTAL</b>	<b>4,819,028.75</b>	<b>232,212.00</b>	<b>-232,212.00</b>	<b>4,819,028.75</b>	<b>-2,996,789.33</b>	<b>-553,127.75</b>	<b>–</b>	<b>-3,549,918.48</b>	<b>1,269,111.67</b>

### RECEIVABLES LINKED TO FINANCIAL MANAGEMENT

Receivables – in euros

	31/12/2016
<b>Related to financial instruments</b>	
Matured coupons for payment	15,801,487.26
Sales pending settlement	8,485,823.45
Fees/rebates receivable	2,062,708.31
<b>TOTAL</b>	<b>26,350,019.02</b>
<b>Related to forex transactions</b>	
Forward purchases	105,039,137.69
Forex forward receivables	9,649,429,488.46
Forex spot receivables	–
Backwardation	8,512,324.18
<b>TOTAL</b>	<b>9,762,980,950.33</b>
<b>Related to forward financial instruments</b>	
Security deposits	440,015,503.41
Margin receivable	20,909,282.17
Premiums on options	16,300,651.50
<b>TOTAL</b>	<b>477,225,437.08</b>

**TRANSFERABLE SECURITIES**

## CHANGES IN THE VALUE OF THE PORTFOLIO OF TRANSFERABLE SECURITIES

**Portfolio at 31 December 2015** – in euros

	Value on acquisition	Valuation differences	Accrued coupons	Balance sheet value
<b>Equities</b>	<b>7,665,223,042.65</b>	<b>1,688,785,747.57</b>	–	<b>9,354,008,790.22</b>
<b>Bonds</b>	<b>15,439,403,581.32</b>	<b>924,621,277.59</b>	<b>278,325,734.64</b>	<b>16,642,350,593.55</b>
<b>Transferable debt securities</b>	<b>921,301,416.15</b>	<b>-336,320.40</b>	–	<b>920,965,095.75</b>
<b>Undertakings for Collective Investment</b>	<b>5,016,993,966.33</b>	<b>852,547,210.10</b>	<b>443,904.98</b>	<b>5,869,985,081.41</b>
UCITS	4,509,023,025.30	463,594,978.43	–	4,972,618,003.73
Other UCIs	507,970,941.03	388,952,231.67	443,904.98	897,367,077.68
Private equity funds	141,987,777.51	390,026,931.22	–	532,014,708.73
Securitisation Entity	365,983,163.52	-1,074,699.55	443,904.98	365,352,368.95
<b>TOTAL</b>	<b>29,042,922,006.45</b>	<b>3,465,617,914.86</b>	<b>278,769,639.62</b>	<b>32,787,309,560.93</b>

**Portfolio at 31 December 2016** – in euros

	Value on acquisition	Valuation differences	Accrued coupons	Balance sheet value
<b>Equities</b>	<b>8,237,847,261.37</b>	<b>1,799,452,546.67</b>	–	<b>10,037,299,808.04</b>
<b>Bonds</b>	<b>13,942,917,721.21</b>	<b>792,870,401.41</b>	<b>215,059,421.44</b>	<b>14,950,847,544.06</b>
<b>Transferable debt securities</b>	<b>1,522,000,000.00</b>	<b>1,201,834.23</b>	–	<b>1,523,201,834.23</b>
<b>Undertakings for Collective Investment</b>	<b>6,508,880,080.00</b>	<b>1,445,434,042.32</b>	–	<b>7,954,314,122.32</b>
UCITS	5,933,098,383.92	1,055,880,581.39	–	6,988,978,965.31
Other UCIs	575,781,696.08	389,553,460.93	–	965,335,157.01
Private equity funds	56,977,800.00	388,164,457.55	–	445,142,257.55
Securitisation Entity	518,803,896.08	1,389,003.38	–	520,192,899.46
<b>TOTAL</b>	<b>30,211,645,062.58</b>	<b>4,038,958,824.63</b>	<b>215,059,421.44</b>	<b>34,465,663,308.65</b>

	31/12/2016	31/12/2015
<b>Equities</b>	<b>10,037,299,808.04</b>	<b>9,354,008,790.22</b>
<b>Bonds</b>	<b>14,950,847,544.06</b>	<b>16,642,350,593.55</b>
<b>Transferable debt securities</b>	<b>1,523,201,834.23</b>	<b>920,965,095.75</b>
<b>Undertakings for Collective Investment</b>	<b>7,954,314,122.32</b>	<b>5,869,985,081.41</b>
UCITS	6,988,978,965.31	4,972,618,003.73
Other UCIs	965,335,157.01	897,367,077.68
Private equity funds	445,142,257.55	532,014,708.73
Securitisation entities	520,192,899.46	365,352,368.95
<b>GRAND TOTAL</b>	<b>34,465,663,308.65</b>	<b>32,787,309,560.93</b>

## BREAKDOWN OF PORTFOLIO BY REMAINING TERM TO MATURITY

	31/12/2016	31/12/2015
< 3 months	0.29%	0.24%
> 3 months < 1 year	9.76%	5.71%
1 to 3 years	7.99%	9.96%
3 to 5 years	29.01%	28.54%
5 to 7 years	31.17%	20.47%
7 to 10 years	16.34%	23.91%
10 to 15 years	2.81%	3.67%
> 15 years	2.62%	7.49%
	<b>100.00%</b>	<b>100.00%</b>

## BREAKDOWN OF PORTFOLIO BY COUPON TYPE

	31/12/2016	31/12/2015
Fixed rate	96.08%	97.76%
Index-linked rate	3.08%	0.00%
Variable rate	0.84%	2.24%
	<b>100.00%</b>	<b>100.00%</b>

## BREAKDOWN OF THE FINANCIAL INSTRUMENTS PORTFOLIO BY LISTING CURRENCY

Currency	Equities	Bonds	Transferable debt securities	Undertakings for Collective Investment			Total
				UCITS <sup>1</sup>	SE <sup>2</sup>	LP <sup>3</sup> and Private Equity Funds	
AUD	189,896,695.03	–	–	–	–	–	189,896,695.03
CAD	79,240,791.60	–	–	–	–	–	79,240,791.60
CHF	170,113,727.96	–	–	–	–	–	170,113,727.96
DKK	54,250,627.47	–	–	–	–	–	54,250,627.47
EUR	4,855,013,360.55	11,767,481,526.09	1,523,343,922.28	3,336,216,023.45	520,192,899.46	295,366,458.72	22,297,614,190.55
GBP	524,507,192.20	–	–	13,265,119.49	–	–	537,772,311.69
HKD	102,430,013.04	–	–	–	–	–	102,430,013.04
JPY	599,053,307.38	–	–	–	–	–	599,053,307.38
NOK	17,138,870.43	–	–	–	–	–	17,138,870.43
NZD	15,297,926.11	–	–	–	–	–	15,297,926.11
SEK	121,614,215.81	–	–	–	–	–	121,614,215.81
SGD	43,814,492.91	–	–	–	–	–	43,814,492.91
USD	3,264,928,587.55	3,183,366,017.97	–	3,639,497,822.37	–	149,775,798.83	10,237,568,226.72
					<b>520,192,899.46</b>	<b>445,142,257.55</b>	
<b>NET TOTAL OF IRA<sup>4</sup></b>	<b>10,037,299,808.04</b>	<b>14,950,847,544.06</b>	<b>1,523,343,922.28</b>	<b>6,988,978,965.31</b>	<b>965,335,157.01</b>		<b>34,465,805,396.70</b>
			IRA on French Treasury Bills	-1,559.35			
			IRA on foreign Treasury Bills	0.00			
			IRA on certificates of deposit	-140,528.70			
			<b>Total IRA</b>	<b>-142,088.05</b>			
<b>TOTAL</b>	<b>10,037,299,808.04</b>	<b>14,950,847,544.06</b>	<b>1,523,201,834.23</b>	<b>7,954,314,122.32</b>			<b>34,465,663,308.65</b>

1 Incl. Exchange Traded Funds.

2 Securitisation entities.

3 Limited Partnership.

4 IRA: Interest received in advance.

## DETAILED STATEMENT OF TRANSFERABLE SECURITIES AT 31 DECEMBER 2016 – in euros

<b>Financial instruments</b>	<b>Net total of IRA</b>	<b>IRA</b>	<b>Portfolio total</b>
<b>EQUITIES</b>			
Eurozone European	4,855,013,360.55	–	4,855,013,360.55
Non-eurozone European	887,624,633.87	–	887,624,633.87
North America	3,344,169,379.15	–	3,344,169,379.15
Asia ex Japan	351,439,127.09	–	351,439,127.09
Japan	599,053,307.38	–	599,053,307.38
<b>SUB-TOTAL</b>	<b>10,037,299,808.04</b>	<b>–</b>	<b>10,037,299,808.04</b>
<b>BONDS</b>			
Eurozone European	11,767,481,526.09	–	11,767,481,526.09
North America	3,183,366,017.97	–	3,183,366,017.97
<b>SUB-TOTAL</b>	<b>14,950,847,544.06</b>	<b>–</b>	<b>14,950,847,544.06</b>
<b>TRANSFERABLE DEBT SECURITIES</b>			
Eurozone European	1,523,343,922.28	-142,088.05	1,523,201,834.23
North America	–	–	–
<b>SUB-TOTAL</b>	<b>1,523,343,922.28</b>	<b>-142,088.05</b>	<b>1,523,201,834.23</b>
<b>UNDERTAKINGS FOR COLLECTIVE INVESTMENT</b>			
<b>UCITS</b>			
Eurozone European	3,336,216,023.45	–	3,336,216,023.45
Non-eurozone European	13,265,111.49	–	13,265,111.49
North America	3,639,497,822.37	–	3,639,497,822.37
<b>SUB-TOTAL</b>	<b>6,988,978,965.31</b>	<b>–</b>	<b>6,988,978,965.31</b>
<b>OTHERS UCI</b>			
<b>Private equity funds</b>			
Europe	295,366,458.72	–	295,366,458.72
North America	149,775,798.83	–	149,775,798.83
<b>SUB-TOTAL</b>	<b>445,142,257.55</b>	<b>–</b>	<b>445,142,257.55</b>
<b>Securitisation entities</b>			
Europe	520,192,899.46	–	520,192,899.46
<b>SUB-TOTAL</b>	<b>520,192,899.46</b>	<b>–</b>	<b>520,192,899.46</b>
<b>GRAND TOTAL</b>	<b>34,465,805,396.70</b>	<b>-142,088.05</b>	<b>34,465,663,308.65</b>

## PRIVATE EQUITY FUNDS

		Panthéon Ventures		Access Capital Partners		Antin Infrastructures	Total
Liabilities at inception	EUR		550,000,000		300,000,000	50,000,000	900,000,000
Liabilities on closing date	EUR		257,474,250		210,000,000	50,000,000	517,474,250
Balance for previous financial year	EUR		58,065,750		70,350,000	13,563,812	141,979,562
Payments over the period (calls for funds)	EUR		19,200,000		2,100,000	808,350	22,108,350
Provisional repayment	EUR		-53,000,000		-40,320,000	-21,138,068	-114,458,068
Balance on closing date	EUR		24,265,750		32,130,000	582,050	56,977,800
Valuation on closing date	EUR		149,864,797		103,336,342	42,165,320	295,366,459

		NBEL <sup>5</sup>		Axa IM Private Equity Europe		Total	NBEL		Axa IM Private Equity Europe		Total
Liabilities at inception	USD	679,993,200	198,000,000	877,993,200	EUR <sup>6</sup>	561,954,608	163,629,596	725,584,204			
Liabilities on closing date	USD	280,711,144	198,000,000	478,711,144	EUR <sup>6</sup>	231,983,086	163,629,596	395,612,682			
Balance for previous financial year	USD	–	–	–	EUR <sup>7</sup>	–	8,215	8,215			
Payments over the period (calls for funds)	USD	–	2,110,449	2,110,449	EUR	–	1,916,293	1,916,293			
Distribution of assets	USD	-64,709,422	-13,035,665	-77,745,087	EUR	-58,292,014	-11,892,801	-70,184,815			
Balance on closing date	USD	–	–	–	EUR	–	–	–			
Valuation on closing date <sup>8</sup>	USD	112,993,559	44,982,464	157,976,023	EUR <sup>8</sup>	107,128,286	42,647,513	149,775,799			
<b>Total initial liabilities (EUR)</b>								<b>1,625,584,204</b>			
<b>Total net payments over the period (EUR)</b>								<b>-160,618,240</b>			
<b>TOTAL VALUED ON CLOSING DATE (EUR )</b>								<b>445,142,258</b>			

5 Neuberger Berman Europe Limited ex Lehman Brother Int. Europe.

6 On the basis of a \$/€ exchange rate of 0.948092 on the closing date.

7 On the basis of a \$/€ exchange rate on the transaction date.

8 Dividends are attributed to the value of the fund under balance sheet assets until the amounts invested are repaid.

Capital gains are recognised when the dividends paid exceed the total amount invested (see article 2.2.2 of CNC notice no. 2008-10 of 05/06/2008).

## SECURITISATION ENTITIES – in euros

Funds FCT <sup>9</sup>	Liabilities at inception	Liabilities on closing date	Balance for previous financial year	Payments over the period		Balance on closing date <sup>10</sup>	Valuation on closing date
				Calls for Funds	Distribution of assets		
Idinvest 1	60,000,000	60,000,000	–	–	-6,272,220	–	50 764 318
NOVO 1	78,000,000	111,150,000	15,750,000	25,708,049	-2,376,428	25,776,428	83 098 162
NOVO 2	42,000,000	59,850,000	4,800,000	3,350,000	-1,784,200	21,084,200	39 653 878
Idinvest 2	80,000,000	80,000,000	1,760,000	1,760,000	–	–	79 709 840
Tikehau	40,000,000	40,000,000	4,400,000	4,400,000	–	–	40 976 920
CM-CIC-Debt Fund 1	80,000,000	80,000,000	18,869,136	18,869,136	-1,514,712	1,514,712	78 993 360
Idinvest 3	100,000,000	100,000,000	66,000,000	65,500,000	–	500,000	101 468 618
Cerea Dette	50,000,000	50,000,000	–	35,403,017	-3,893,910	18,788,347	31 714 981
FCT Eurocréances	50,000,000	50,000,000	–	13,672,000	–	36,328,000	13 812 822
<b>SUB-TOTAL</b>	<b>580,000,000</b>	<b>631,000,000</b>	<b>111,579,136</b>	<b>168,662,202</b>	<b>-15,841,470</b>	<b>103,991,688</b>	<b>520,192,899</b>

Funds FPS <sup>11</sup>	Liabilities at inception	Liabilities on closing date	Balance for previous financial year	Payments over the period		Balance on closing date	Valuation on closing date
				Calls for Funds	Distribution of asset		
FPS Immo Durable	200,000,000	200,000,000	191,200,000	14,354,293	–	176,845,707	23,154,293
NOVI 1	72,500,000	72,500,000	54,243,490	10,875,000	–	43,368,490	32,168,634
NOVI 2	72,500,000	72,500,000	43,210,000	10,875,000	–	32,335,000	45,184,700
BNP PARIBAS FPS FPE	95,000,000	95,000,000	57,000,000	57,000,000	–	–	95,873,826
Meridiam	50,000,000	50,000,000	–	714,033	–	49,290,134	205,351
<b>SUB-TOTAL</b>	<b>490,000,000</b>	<b>490,000,000</b>	<b>345,653,490</b>	<b>93,818,326</b>	<b>–</b>	<b>301,839,331</b>	<b>196,586,804</b>
<b>TOTAL</b>	<b>1,070,000,000</b>	<b>1,121,000,000</b>	<b>457,232,626</b>	<b>262,480,529</b>	<b>-15,841,470</b>	<b>405,831,019</b>	<b>716,779,704</b>

<sup>9</sup> Debt Securitisation Fund (Fonds Commun de Titrisation).

<sup>10</sup> Balance on the closing date excluding issue and subscription premiums.

<sup>11</sup> Specialised professional UCITS fund (SICAV or FCP).

## CASH

## Currencies – in euros

	Total
AUD	7,401,975.01
CAD	4,764,104.97
CHF	9,835,327.0
DKK	284,546.54
EUR	526,862,895.93
GBP	15,722,340.65
HKD	9,788,866.45
JPY	51,297,184.53
NOK	365,014.51
NZD	79,094.38
SEK	473,543.49
SGD	212,531.51
USD	469,199,247.14

## TOTAL

1,096,286,672.11

## ADDITIONAL INFORMATION RELATING TO LIABILITIES

### CHANGES TO PERMANENT CAPITAL – in euros

Equity capital	31/12/2015	Allocation of 2015 profit/loss	2016 profit/(loss)	Variation		31/12/2016
				[+]	[-]	
Allocations	2,870,680,121.97	–	–	–	–	2,870,680,121.97
Reserves	5,496,133,780.00	1,500,464,460.48	–	–	–	6,996,598,240.48
Valuation differences	2,949,210,368.15	–	–	776,367,509.17	–	3,725,577,877.32
Profit/(loss) for the financial year	1,500,464,460.48	-1,500,464,460.48	746,614,649.95	–	–	746,614,649.95
<b>SUB-TOTAL</b>	<b>12,816,488,730.60</b>	<b>–</b>	<b>746,614,649.95</b>	<b>776,367,509.17</b>	<b>–</b>	<b>14,339,470,889.72</b>
<b>Long-term debts</b>	<b>31/12/2015</b>					<b>31/12/2016</b>
CNIEG	4,581,594,321.66	–	–	235,601,406.87	–	4,817,195,728.53
CADES + 1 year	16,800,000,000.00	–	–	–	2,100,000,000.00	14,700,000,000.00
<b>SUB-TOTAL</b>	<b>21,381,594,321.66</b>	<b>–</b>	<b>–</b>	<b>235,601,406.87</b>	<b>2,100,000,000.00</b>	<b>19,517,195,728.53</b>
<b>TOTAL PERMANENT CAPITAL</b>	<b>34,198,083,052.26</b>	<b>–</b>	<b>746,614,649.95</b>	<b>1,011,968,916.04</b>	<b>2,100,000,000.00</b>	<b>33,856,666,618.25</b>

### PROFIT/LOSS FOR RECENT FINANCIAL YEARS – in euros

	2013	2014	2015	2016
Profit/(loss) for the financial year	1,861,038,145.61	1,439,660,130.27	1,500,464,460.48	746,614,649.95

Profits/losses for the financial years preceding the closing date are allocated to reserves.

### DEBTS – in euros

#### DEBT REPAYMENT SCHEDULE

	Total	- 1 year	+ 1 year	of which 1-5 years	of which more than 5 years
Extraordinary contribution to CNIEG	4,817,195,728.53	–	4,817,195,728.53	4,817,195,728.53	–
CADES debt	16,800,000,000.00	2,100,000,000.00	14,700,000,000.00	8,400,000,000.00	6,300,000,000.00
Payables from operations	46,092,098.08	46,092,098.08	–	–	–
Payables on financial instruments	3,536,696.07	3,536,696.07	–	–	–
Payables on forex transactions	9,808,627,457.95	9,808,627,457.95	–	–	–
Payables on forward financial instruments	14,994,716.56	14,994,716.56	–	–	–
	<b>31,490,446,697.19</b>	<b>11,973,250,968.66</b>	<b>19,517,195,728.53</b>	<b>13,217,195,728.53</b>	<b>6 300,000,000.00</b>

## EXTRAORDINARY CONTRIBUTION TO CNIEG – in euros

Equity capital at 31 December 2015	12,816,488,730.60
CNIEG balance at 31 December 2015	4,581,594,321.66
2016 employers' contributions	–
CADES debt at 31 December 2016	16,800,000,000.00
	<b>34,198,083,052.26</b>

**CNAV SHARE AT 31 DECEMBER 2016** **13.40%**

**Employers' contributions**

Allocations at 31 December 2015	2,870,680,121.97	<b>2016</b>
Allocations at 31 December 2016	2,870,680,121.97	–

<b>Breakdown at 31 December 2016</b>	<b>31/12/2015</b>	<b>31/12/2016</b>	<b>à répartir</b>
Operating expenses	–	-63,181,073.85	-63,181,073.85
Financial Income	–	925,271,634.60	925,271,634.60
Extraordinary Income	–	23,447.41	23,447.41

**TOTAL INCOME** – **862,114,008.16** **862,114,008.16**

Valuation difference – Financial instruments	3,076,665,683.19	3,649,405,363.70	572,739,680.51
Valuation difference – Forex	22,747,962.29	10,972,131.74	-11,775,830.55
Valuation difference – Forward exchange	-353,265,133.67	-40,304,337.33	312,960,796.34
Valuation difference – Derivatives	32,989,409.01	55,728,470.61	22,739,061.60
Valuation difference – Private equity funds	390,026,931.22	388,164,457.55	-1,862,473.67
Valuation difference – Securitisation entities	-1,074,699.55	1,389,003.38	2,463,702.93
Valuation difference – Options	-1,817,333.92	-2,612,713.46	-795,379.54

**VALUATION DIFFERENCE – TOTAL** **3,166,272,818.57** **4,062,742,376.19** **896,469,557.62**

Financial and extraordinary profit/loss less operating expenses t 862,114,008.16

**Breakdown percentage** **13.40%**

**TO BE CREDITED TO THE CNAV** **115,499,358.21**

Valuation difference 896,469,557.62

**Breakdown percentage** **13.40%**

**TO BE CREDITED TO THE CNAV** **120,102,048.66**

**Summary**

Financial and extraordinary profit/loss less operating expenses	115,499,358.21
Valuation difference	120,102,048.66

**TOTAL** **235,601,406.86**

**As a reminder: CNIEG contribution at 31 December 2015** **4,581,594,321.66**

**CNIEG CONTRIBUTION AT 31 DECEMBER 2016** **4,817,195,728.52**

## PAYABLES RELATED TO FINANCIAL MANAGEMENT

<b>Payables</b> – in euros	<b>31/12/2016</b>
<b>Related to financial instruments</b>	
Purchases pending settlement	3,536,696.07
<b>TOTAL</b>	<b>3,536,696.07</b>
<b>Related to forex transactions</b>	
Forward sales	9,702,368,950.11
Currencies for forward delivery	104,707,059.20
Currencies for spot delivery	–
Contango	1,551,448.64
<b>TOTAL</b>	<b>9,808,627,457.955</b>
<b>Related to forward financial instruments</b>	
Margin payable	5,682,028.48
Premiums on options	9,312,688.08
<b>TOTAL</b>	<b>14,994,716.56</b>

**PREPAID INCOME**

Prepaid income amounted to -EUR 142,088.05. It corresponds to interest prepaid on certain transferable debt securities<sup>12</sup> on which rates are negative. It is presented in the “Prepaid expenses” item of the balance sheet.

<sup>12</sup> BTF, CDN, foreign Treasury Bills, commercial paper.

## ADDITIONAL INFORMATION RELATING TO THE PROFIT AND LOSS ACCOUNT

OPERATING EXPENSES – in euros

	<b>Amount</b>
<b>Outside services</b>	<b>61,605,852.48</b>
Administrative Management ( <i>Caisse des dépôts et consignations</i> )	21,631,451.62
Investment company fees	35,767,454.89
Other outside services	4,206,945.97
<i>including trading costs on forward financial instruments</i>	<i>3,479,708.51</i>
<b>Taxes and duties</b>	<b>85,075.91</b>
<b>Payroll</b>	<b>937,017.71</b>
<b>Depreciation and amortisation</b>	<b>553,127.75</b>
<b>TOTAL</b>	<b>63,181,073.85</b>

TABLE OF STAFF REMUNERATED DIRECTLY BY THE FRR

### Table of staff and breakdown by category

<b>Catégorie</b>	<b>Permanent (CDI)</b>	<b>Temporary (CDD)</b>	<b>Temps</b>	<b>Others</b>	<b>Total</b>
Management	2	–	–	–	2
Executives	1	–	–	–	1
Employees	4	1	–	–	5
<b>TOTAL</b>	<b>7</b>	<b>1</b>	<b>–</b>	<b>–</b>	<b>8</b>
<b>OTHERS<sup>13</sup></b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>2</b>	<b>–</b>

<sup>13</sup> Chairman of the Supervisory Board and Accounting Officer.

## OFF-BALANCE SHEET LIABILITIES

## Forward foreign exchange contracts – in euros

Currency codes	Currency receivable	%	Currency to be delivered	%
AUD	183,145,522.07	1.90%	702,616.76	0.67%
CAD	102,255,898.09	1.06%	17,753,352.89	16.96%
CHF	164,646,525.12	1.71%	860,012.23	0.82%
DKK	51,913,851.82	0.54%	2,853,658.37	2.73%
GBP	504,035,365.86	5.22%	5,581,783.50	5.33%
HKD	107,195,729.29	1.11%	6,195,539.93	5.92%
JPY	595,835,014.27	6.17%	–	–
NOK	12,353,212.40	0.13%	–	–
NZD	14,733,956.27	0.15%	–	–
SEK	102,630,734.70	1.06%	–	–
SGD	42,125,020.83	0.44%	1,516,822.31	1.45%
USD	7,768,558,657.74	80.51%	69,243,273.20	66.13%
<b>TOTAL</b>	<b>9,649,429,488.46</b>	<b>100.00%</b>	<b>104,707,059.19</b>	<b>100.00%</b>

## Securities and cash on deposit at 31/12/2016 – in euros

Stock code	Name of stock	Quantity	Cost price	Market value
XS1395021089	CA LONDON 1.25% 14/04/26 EUR	5,000,000.00	4,993,950.00	5,089,739.48
<b>SOUS-TOTAL</b>			<b>4,993,950.00</b>	<b>5,089,739.48</b>
Stock code	Name of stock	Quantity	Cost price	Market value
DG.AUD	DEPOSIT AUD	63,000.00	41,873.69	43,251.40
DG.AUD	DEPOSIT AUD	25,200.00	16,960.11	17,300.56
DG.AUD	DEPOSIT AUD	50,400.00	33,918.84	34,601.12
DG.CAD	DEPOSIT CAD	17,474.00	12,200.78	12,353.91
DG.CAD	DEPOSIT CAD	3,992,809.00	2,772,687.67	2,822,870.37
DG.CAD	DEPOSIT CAD	34,948.00	24,402.69	24,707.83
DG.EUR	DEPOSIT EUR	216,047.70	216,047.70	216,047.70
DG.EUR	DEPOSIT EUR	686,913.20	686,913.20	686,913.20
DG.EUR	DEPOSIT EUR	194,044,944.08	194,044,944.08	194,044,944.08
DG.EUR	DEPOSIT EUR	593,069.00	593,069.00	593,069.00
DG.EUR	DEPOSIT EUR	784,350.20	784,350.20	784,350.20
DG.EUR	DEPOSIT EUR	606,600.60	606,600.60	606,600.60
DG.EUR	DEPOSIT EUR	501,451.80	501,451.80	501,451.80
DG.EUR	DEPOSIT EUR	463,532.40	463,532.40	463,532.40
DG.EUR	DEPOSIT EUR	54,843.30	54,843.30	54,843.30
DG.EUR	DEPOSIT EUR	217,003.30	217,003.30	217,003.30
DG.GBP	DEPOSIT GBP	64,600.00	56,207.38	75,679.47
DG.GBP	DEPOSIT GBP	2,625,800.00	3,378,074.73	3,076,148.07
DG.HKD	DEPOSIT HKD	284,000.00	32,862.19	34,728.80
DG.HKD	DEPOSIT HKD	213,000.00	25,120.84	26,046.60
DG.HKD	DEPOSIT HKD	213,000.00	25,004.32	26,046.60
DG.JPY	DEPOSIT JPY	5,940,000.00	51,547.25	48,284.51
DG.JPY	DEPOSIT JPY	1,389,960,000.00	11,434,189.69	11,298,577.15
DG.SGD	DEPOSIT SGD	11,000.00	7,253.91	7,218.79
DG.SGD	DEPOSIT SGD	9,900.00	6,523.18	6,496.91
DG.USD	DEPOSIT USD	161,975.00	149,389.49	153,567.19
DG.USD	DEPOSIT USD	234,918,811.62	216,246,101.24	222,724,637.70
DG.USD	DEPOSIT USD	109,395.00	97,470.60	103,716.52
DG.USD	DEPOSIT USD	1,084,440.00	975,414.74	1,028,148.85
DG.USD	DEPOSIT USD	297,825.00	280,430.07	282,365.48
<b>SUB-TOTAL</b>			<b>433,836,388.99</b>	<b>440,015,503.41</b>
<b>TOTAL</b>			<b>438,830,338.99</b>	<b>445,105,242.89</b>

## OTHER LIABILITIES – in euros

**Valuation of off-balance sheet commitments on derivatives****CURRENCY FUTURES****Long position**

Stock code	Name of stock	Curr.	Quantity	Price	Commitment OBS valued
EC0317	CHI FUTUR EUR/U 0317	USD	4,999.00	1.06	626,444,963.25
<b>TOTAL</b>					<b>626,444,963.25</b>

**INDEX FUTURES****Long position**

Stock code	Name of stock	Curr.	Quantity	Price	Commitment OBS valued
AP0317	SYD FUTURE SPI2 0317	AUD	4.00	5,631.00	386,585.20
AP0317	SYD FUTURE SPI2 0317	AUD	8.00	5,631.00	773,170.40
ES0317	CHI FUTUR SPMIN 0317	USD	31.00	2,236.20	3,286,191.04
ES0317	CHI FUTUR SPMIN 0317	USD	57.00	2,236.20	6,042,351.27
FCE0117	Mar CAC40 0117	EUR	6,572.00	4,863.00	319,596,360.00
FDAX0317	EUR FUTURE DAX 0317	EUR	1,208.00	11,465.00	346,243,000.00
FESX0317	EUR DJ EURO STO 0317	EUR	41,520.00	3,277.00	1,360,610,400.00
FESX0317	EUR DJ EURO STO 0317	EUR	91.00	3,277.00	2,982,070.00
FESX0317	EUR DJ EURO STO 0317	EUR	288.00	3,277.00	9,437,760.00
FESX0317	EUR DJ EURO STO 0317	EUR	23.00	3,277.00	753,710.00
FESX0317	EUR DJ EURO STO 0317	EUR	91.00	3,277.00	2,982,070.00
FTI0117	Mar FUTURE AEX 0117	EUR	467.00	483.10	45,121,540.00
HSI0117	HKF HANG SENG I 0117	HKD	3.00	21,962.00	402,841.89
HSI0117	HKF HANG SENG I 0117	HKD	3.00	21,962.00	402,841.89
IX0117	MEF IBEX 35 0117	EUR	1,236.00	9,313.40	115,113,624.00
SG_FQ0117	SIM MSCI SINGAP 0117	SGD	10.00	319.80	209,870.06
SG_FQ0117	SIM MSCI SINGAP 0117	SGD	9.00	319.80	188,883.06
SPMIB0317	ITA SPMIB INDEX 0317	EUR	1,298.00	19,205.00	124,640,450.00
SXF600317	MON FUTURE TSE6 0317	CAD	2.00	896.90	253,639.22
SXF600317	MON FUTURE TSE6 0317	CAD	4.00	896.90	507,278.45
TP0317	OSA TOPIX 0317	JPY	2,106.00	1,518.00	259,867,274.79
TP0317	OSA TOPIX 0317	JPY	9.00	1,518.00	1,110,543.91
Z0317	LIF FTSE100 0317	GBP	18.00	7,050.00	1,486,644.80
<b>TOTAL</b>					<b>2,602,399,099.97</b>

**Short position**

Stock code	Name of stock	Curr.	Quantity	Price	Commitment OBS valued
AP0317	SYD FUTURE SPI2 0317	AUD	10	5,631.00	966,463.00
ES0317	CHI FUTUR SPMIN 0317	USD	8765	2,236.20	929,144,015.15
HSI0117	HKF HANG SENG I 0117	HKD	4	21,962.00	537,122.52
NQ0317	CHI NASDAQ 100 0317	USD	84	4,864.00	7,747,352.45
SXF600317	MON FUTURE TSE6 0317	CAD	457	896.90	57,956,562.62
YM0317	CBO FUTURE DJ M 0317	USD	86	19,720.00	8,039,440.63
Z0317	LIF FTSE100 0317	GBP	691	7,050.00	57,070,641.99
<b>TOTAL</b>					<b>1,061,461,598.35</b>

**INTEREST RATE FUTURES****Long position**

<b>Stock code</b>	<b>Name of stock</b>	<b>Curr.</b>	<b>Quantity</b>	<b>Price</b>	<b>Commitment OBS valued</b>
FGBL0317	EUR EURO BUND F 0317	EUR	295.00	164.15	48,424,250.00
FGBL0317	EUR EURO BUND F 0317	EUR	225.00	164.15	36,933,750.00
FGBM0317	EUR EURO BOBL F 0317	EUR	472.00	133.63	63,073,360.00
FGBS0317	EUR EURO SCHATZ 0317	EUR	4.00	112.29	449,160.00
FGBS0317	EUR EURO SCHATZ 0317	EUR	1.00	112.29	112,290.00
FGBX0317	EUR FUTURE EURO 0317	EUR	76.00	173.52	13,187,520.00
FSMI0317	EUR FUTURE SMI 0317	CHF	3.00	8,173.00	228,722.01
FV0317	CBO UST NOTE 5 0317	USD	117.00	117.66	13,051,919.89
FV0317	CBO UST NOTE 5 0317	USD	257.00	117.66	28,669,601.80
TU0317	CBO 2 Y US TRES 0317	USD	272.00	108.34	55,879,592.32

<b>TOTAL</b>					<b>260,010,166.02</b>
--------------	--	--	--	--	-----------------------

**Short position**

<b>Stock code</b>	<b>Name of stock</b>	<b>Curr.</b>	<b>Quantity</b>	<b>Price</b>	<b>Commitment OBS valued</b>
FGBL0317	EUR EURO BUND F 0317	EUR	4,083.00	164.15	670,224,450.00
FGBL0317	EUR EURO BUND F 0317	EUR	572.00	164.15	93,893,800.00
FGBL0317	EUR EURO BUND F 0317	EUR	273.00	164.15	44,812,950.00
FGBL0317	EUR EURO BUND F 0317	EUR	227.00	164.15	37,262,050.00
FGBL0317	EUR EURO BUND F 0317	EUR	189.00	164.15	31,024,350.00
FGBM0317	EUR EURO BOBL F 0317	EUR	10,886.00	133.63	1,454,696,180.00
FGBM0317	EUR EURO BOBL F 0317	EUR	405.00	133.63	54,120,150.00
FGBM0317	EUR EURO BOBL F 0317	EUR	82.00	133.63	10,957,660.00
FGBM0317	EUR EURO BOBL F 0317	EUR	135.00	133.63	18,040,050.00
FGBS0317	EUR EURO SCHATZ 0317	EUR	13,269.00	112.29	1,489,976,010.00
FGBS0317	EUR EURO SCHATZ 0317	EUR	322.00	112.29	36,157,380.00
FGBX0317	EUR FUTURE EURO 0317	EUR	15.00	173.52	2,602,800.00
FSMI0317	EUR FUTURE SMI 0317	CHF	300.00	8,173.00	22,872,201.49
FV0317	CBO UST NOTE 5 0317	USD	3,341.00	117.66	372,704,823.41
TN0317	CBO ULTRA NOTE 0317	USD	397.00	134.06	50,460,120.88
TU0317	CBO 2 Y US TRES 0317	USD	2,974.00	108.34	610,977,601.31
TY0317	CBO T NOTE US 1 0317	USD	3,294.00	124.28	388,132,199.56
TY0317	CBO T NOTE US 1 0317	USD	102.00	124.28	12,018,665.56
UBE0317	CBO ULTRA BOND 0317	USD	1,345.00	160.25	204,348,186.77
UBE0317	CBO ULTRA BOND 0317	USD	11.00	160.25	1,671,249.11
US0317	CBO FUTURE BOND 0317	USD	2,690.00	150.66	384,228,786.43
US0317	CBO FUTURE BOND 0317	USD	23.00	150.66	3,285,227.54

<b>TOTAL</b>					<b>5,994,466,892.08</b>
--------------	--	--	--	--	-------------------------

## INDEX CALL OPTIONS – in euros

Stock code	Name of stock Fininfo	Quantity	Strike price	Support price	Delta (Mid)	Commitment value (value of the underlying)
OSPX0317C-2	S&P 500 C 1703 2275.00	-2,406.00	2,275.00	2,238.83	0.380	-194,066,601.73
OSPX0317C-3	S&P 500 C 1703 2345.00	-2,303.00	2,345.00	2,238.83	0.161	-78,703,019.64
<b>TOTAL, BY ABSOLUTE VALUE</b>						<b>272,769,621.377</b>

## INDEX PUT OPTIONS – in euros

Stock code	Name of stock Fininfo	Quantity	Strike price	Support price	Delta (Mid)	Commitment value (value of the underlying)
OSPX0317P-3	S&P 500 P 1703 2150.00	2,406.00	2,150.00	2,238.83	-0.287	-146,571,354.46
OSPX0317P-4	S&P 500 P 1703 2025.00	-2,406.00	2,025.00	2,238.83	-0.130	66,391,205.86
OSPX0317P-5	S&P 500 P 1703 2065.00	-2,303.00	2,065.00	2,238.83	-0.168	82,124,890.05
OSPX0317P-6	S&P 500 P 1703 2210.00	2,303.00	2,210.00	2,238.83	-0.419	-204,823,386.50
<b>TOTAL, BY ABSOLUTE VALUE</b>						<b>499,910,836.87</b>

Stock code	Name of stock Fininfo	Quantity	Strike price	Support price	Delta (Mid)	Commitment value (value of the underlying)
OESX0317P-1	EURO STOXX 50 P 1703 3175.00	15,356.00	3,175.00	3,290.52	-0.343	-173,315,242.16
OESX0317P-2	EURO STOXX 50 P 1703 2950.00	-15,356.00	2,950.00	3,290.52	-0.149	75,288,545.43
<b>TOTAL, BY ABSOLUTE VALUE</b>						<b>248,603,787.59</b>

# Statutory auditor's report at 31 December 2016

Dear Sir/Madam,

Following our appointment by the Supervisory Board, we hereby present our report for the financial year ended 31 December 2016, relative to:

- the audit of the annual financial statements of the Fonds de réserve pour les retraites, which are attached to this report;
- the justification of our evaluations;
- the specific verifications and information required by law.

The annual financial statements were prepared by the Management Board. Our role is to express an opinion on these annual financial statements based on our audit.

## I. Opinion on the annual financial statements

We have conducted an audit in accordance with the professional standards applicable in France; these standards require that we use procedures to obtain reasonable assurance that the annual financial statements are free of material misstatement. An audit consists in examining, on a test basis or using other selection methods, the evidence supporting the amounts and disclosures contained in the annual financial statements. It also consists in assessing the accounting principles used and the significant estimates made, as well as in evaluating the overall presentation of the financial statements. We believe that the evidence gathered is pertinent and sufficient to serve as a basis for our opinion.

In our opinion, the annual financial statements, in accordance with French accounting rules and principles, give a true and fair view of the financial position and assets and liabilities of the Fund and of the results of its operations at the end of the financial year.

## II. Justification of evaluations

In application of the provisions of article L.823-9 of the French Commercial Code in relation to the justification of our evaluations, we wish to highlight the following points:

As indicated in note I to the financial statements, "Accounting rules and methods used", the financial statements were prepared in accordance with the accounting principles and methods of the accounting scheme specific to social security organisations, as well as CNC notice 2003-07 of 24 June 2003, amended by notice no. 2008-10 of 5 June 2008, on the recognition of financial instruments by the Fonds de réserve pour les retraites.

As part of our evaluation of the accounting rules and methods used, especially for evaluating the financial instruments in the portfolio, we have verified the appropriateness of these rules and methods and of the information provided in the notes to the financial statements. We also verified the correct application of these rules and methods.

The evaluations were made in the context of our audit of the annual financial statements, taken as a whole, and therefore contributed to the formation of the opinion expressed in the first part of this report.

## III. Specific verifications and information

We have also carried out the specific verifications required by law in accordance with the professional auditing standards applicable in France.

We have no comment as to the fair presentation and conformity with the annual financial statements of the information given in the management report with respect to the financial position and annual financial statements.

Paris and Courbevoie, 20 February 2017

### Statutory Auditors

Grant Thornton

French member of Grant Thornton International



Hervé Grondin  
Partner



Brigitte Vaira-Bettencourt  
Partner

Mazars



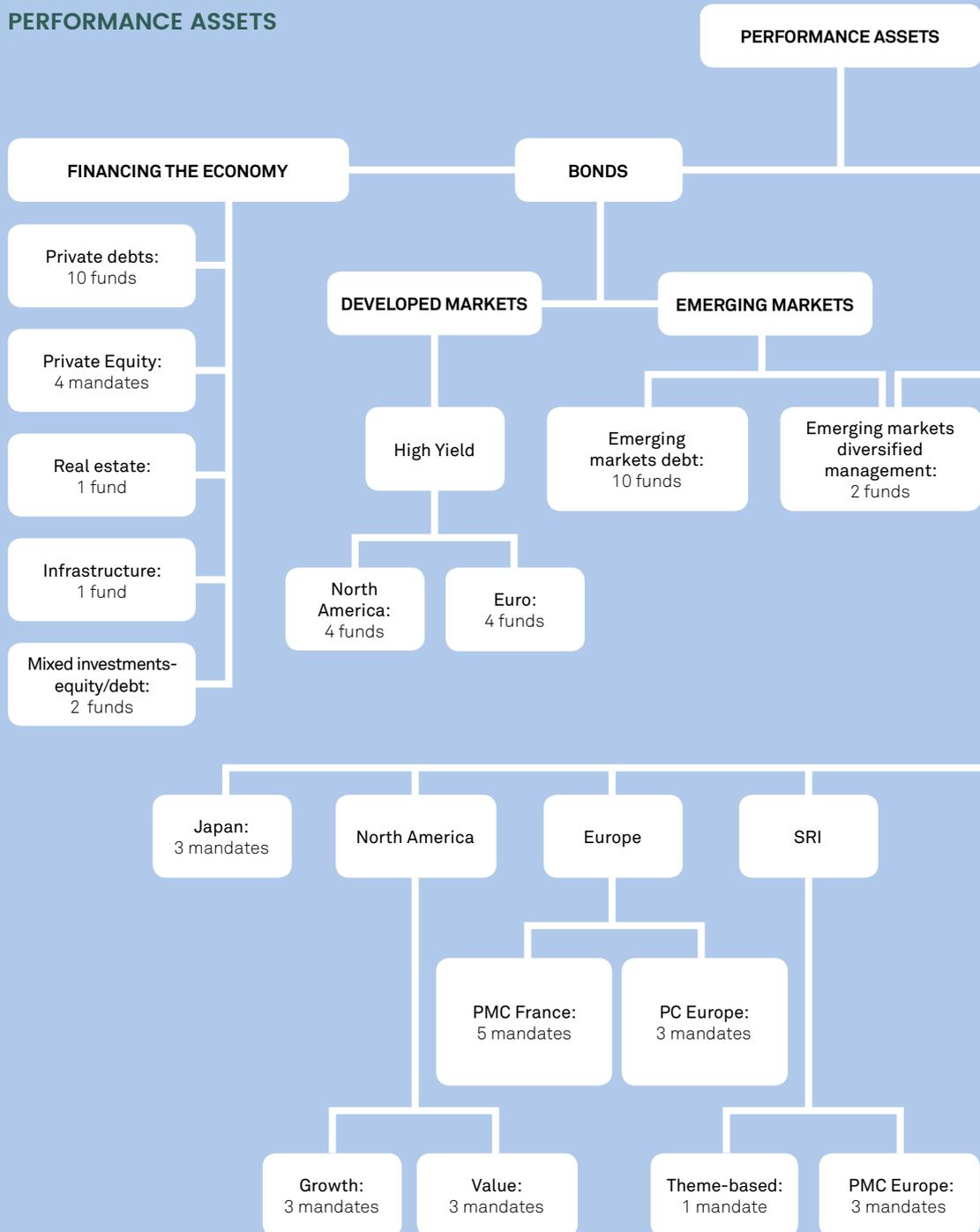
Gilles Dunand-Roux  
Partner

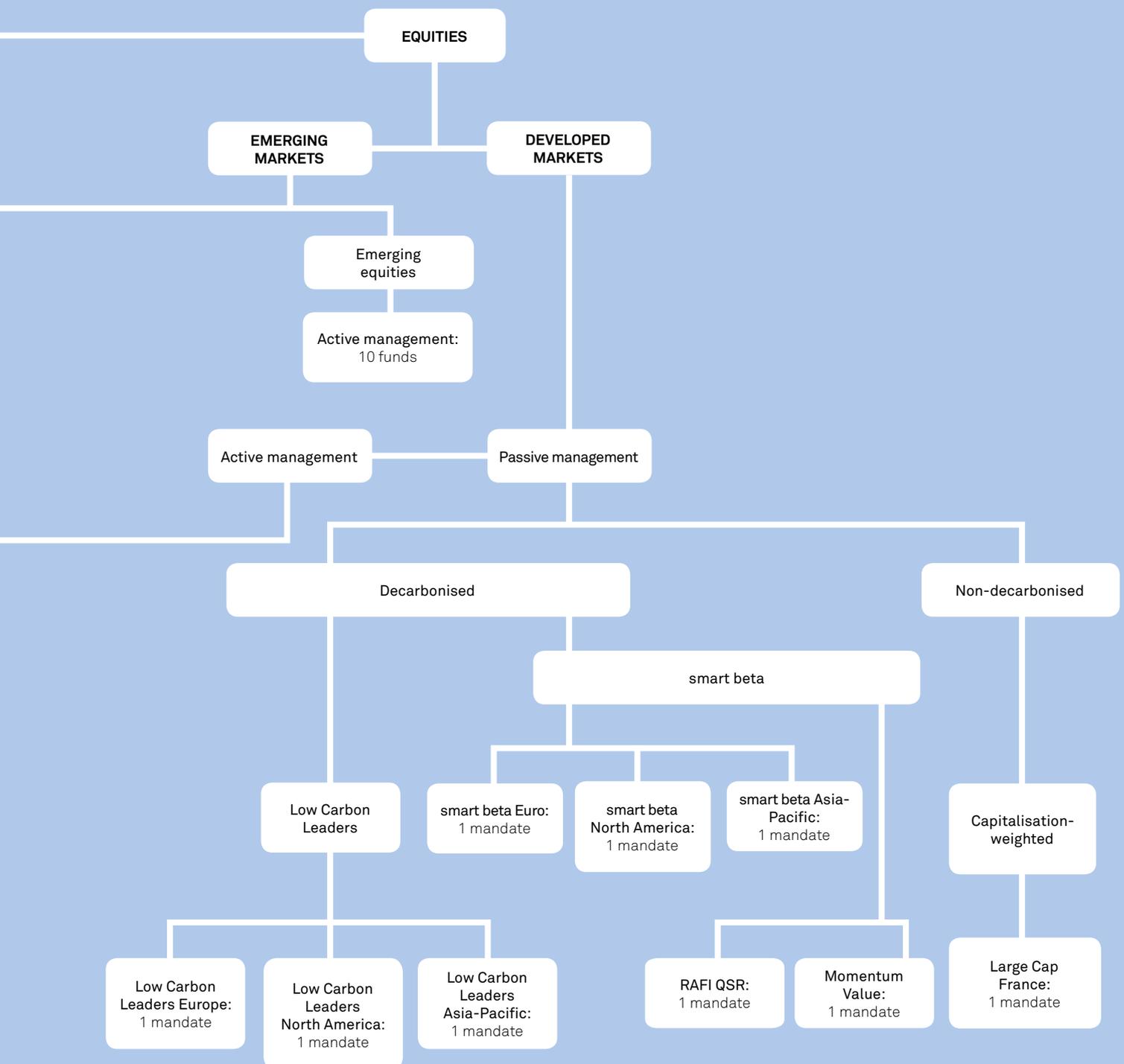


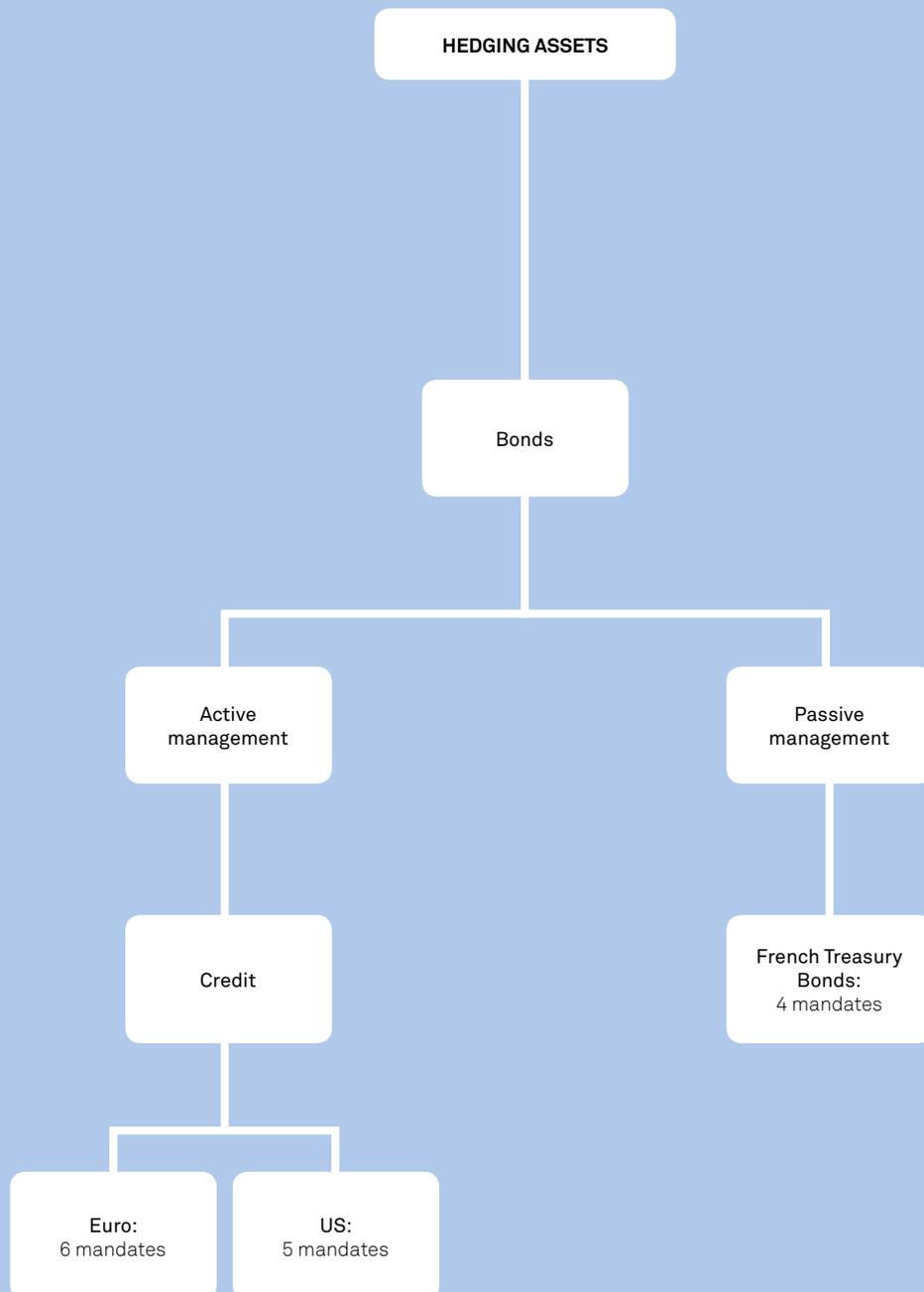
Pierre Masiéri  
Partner

# Mapping of the FRR's portfolio at 31 December 2016

## PERFORMANCE ASSETS





**HEDGING ASSETS**

# The FRR's investment management companies in 2016<sup>1</sup>

## 2005FRR05

### PRIVATE EQUITY PROGRAMME

- Access Capital Partners (European small and mid-caps fund)
- Ardian Investment (AXA Private Equity Europe), (Secondary LBO fund)
- Neuberger Berman Europe Limited (North American diversified fund)
- Pantheon Ventures (UK) LLP (European diversified fund)

## 2009FRR02

### BOND MANAGEMENT MANDATES LOT 2 – BONDS AND OTHER DEBT SECURITIES ISSUED IN EURO – “INVESTMENT GRADE CREDIT” CATEGORY – ACTIVE MANAGEMENT

- AXA Investment Managers (France)
- La Banque Postale Asset Management
- Quoniam Asset Management GmbH
- Standard Life Investments

## 2009FRR02

### BOND MANAGEMENT MANDATES LOT 3 – BONDS AND OTHER DEBT SECURITIES ISSUED IN US DOLLAR – “INVESTMENT GRADE CREDIT” CATEGORY – ACTIVE MANAGEMENT

- AXA Investment Managers (France) (AXA Investment Managers, Inc., US)
- BlackRock international (UK) Limited (BlackRock Financial Management, LLC)
- Conning Asset Management Limited (Conning & Company)
- Deutsche Asset Management International GmbH (DIMA)

## 2010FRR05

### PASSIVE MANAGEMENT MANDATES – LOT 1 – MATCHED BOOK MANAGEMENT

- Allianz Global Investors
- Amundi Asset Management
- AXA Investment Managers
- BNP Paribas Asset Management
- Natixis Asset Management

## 2010FRR05

### PASSIVE MANAGEMENT MANDATES – LOT 2 – DEVELOPED COUNTRY BONDS – INVESTMENT GRADE

- BlackRock Investment Management (UK) Limited<sup>2</sup>
- CCR Asset Management (UBS AG Zurich)
- State Street Global Advisors (State Street Global Advisors Limited, UK)<sup>2</sup>

## 2011FRR01

### PASSIVE MANAGEMENT MANDATES – LOT 1 – DEVELOPED COUNTRY EQUITIES – STANDARD INDICES

- AllianceBernstein (UK) Limited (AllianceBernstein L.P. - USA)
- Vanguard Asset Management (UK) Limited (The Vanguard Group, Inc. - USA)

## 2011FRR01

### PASSIVE MANAGEMENT MANDATES – LOT 2 – DEVELOPED COUNTRY EQUITIES – OPTIMISED INDICES

- Amundi Asset Management
- BNP Paribas Asset Management

<sup>1</sup> In accordance with the consultation regulations, note that the awarding of the contract, which alone is binding upon the FRR, shall take place after the contract has been concluded with each management company whose proposal has been accepted. The name of the entity that will manage the mandate on behalf of the contracting entity is indicated in brackets.

<sup>2</sup> Mandate completed in the second half of 2016.

**2011FRR06****ACTIVE MANAGEMENT MANDATES – LOT 1 – DEVELOPED COUNTRY EQUITIES EXPOSED TO EMERGING ECONOMY GROWTH – EUROPE**

- BlackRock Investment Management (UK) Limited
- Edmond de Rothschild Asset Management

**2011FRR06****ACTIVE MANAGEMENT MANDATES – LOT 2 – DEVELOPED COUNTRY EQUITIES EXPOSED TO EMERGING ECONOMY GROWTH – GLOBAL**

- JP Morgan Asset Management (UK) Limited
- Schroder Investment Management (UK) Limited

**2011FRR07****ACTIVE MANAGEMENT MANDATES – LOT 1 – SRI EQUITIES–THEME-BASED COLLECTIVE FUND MANDATES**

- BNP Paribas Asset Management
- Kleinwort Benson Investors

**2011FRR07****ACTIVE MANAGEMENT MANDATES – LOT 2 – SRI EQUITIES–EUROPE EQUITIES: NEW SUSTAINABLE GROWTH**

- AXA Investment Managers
- Kempen Capital Management (UK) Limited
- La Financière de l'Échiquier

**2012FRR03****TRANSITION OPERATIONS MANAGEMENT**

- BlackRock Advisors (UK) Limited
- Goldman Sachs International
- Russell Implementation Services Limited

**2013FRR01****ACTIVE MANAGEMENT MANDATES – LOT 1 – EUROPEAN SMALL-CAPS**

- Fidelity Gestion SAS (Fil Gestion)
- Montanaro Asset Management
- Threadneedle Asset Management Limited
- Standard Life Investment Limited

**2013FRR01****ACTIVE MANAGEMENT MANDATES – LOT 2 – FRENCH SMALL AND MID-CAPS**

- CM-CIC Asset Management
- CPR Asset Management
- Generali Investments Europe
- Oddo Asset Management
- Sycomore Asset Management

**2013FRR02****ACTIVE MANAGEMENT MANDATES – LOT 1 – US LARGE AND MID-CAPS – VALUE**

- Old Mutual Asset Management
- Robeco Institutional Asset Management B.V.
- Wells Fargo Securities International Limited

**2013FRR02****ACTIVE MANAGEMENT MANDATES – LOT 2 – US LARGE AND MID-CAPS – GROWTH**

- JP Morgan Asset Management (UK) Limited
- T.Rowe Price International Limited
- Wells Fargo Securities International Limited

**2013FRR05****ACTIVE MANAGEMENT MANDATES – JAPANESE EQUITIES**

- Capital International Limited
- JP Morgan Asset Management (UK) Limited
- Schroder Asset Management Limited

**2014FRR03****OVERLAY MANAGEMENT MANDATES**

- Russell Implementation Services (UK) Limited
- State Street Global (France) Advisors

**2015FRR01****ACTIVE MANAGEMENT MANDATES – CORPORATE BONDS – LOT 1 – EURO-DENOMINATED CORPORATE BONDS**

- Allianz Global Investors GmbH
- AXA Investment Managers
- HSBC Global Asset Management
- Insight Investment Management (Global) Limited
- Kempen Capital Management N.V.
- La Banque Postale Asset Management

**2015FRR01****ACTIVE MANAGEMENT MANDATES –  
CORPORATE BONDS – LOT 2 – US DOLLAR-  
DENOMINATED CORPORATE BONDS**

- AXA Investment Managers (AXA Investment Managers Inc. – USA)
- BFT Investment Managers (MacKayShields LLC, USA)
- BlackRock Investment Management (UK) Limited (BlackRock Financial Management Limited – USA)
- Morgan Stanley Investment Management Limited (Morgan Stanley Investment Management Inc. – USA)
- Wells Fargo Securities International Limited (Wells Capital Management, Inc. – USA)

**2016FRR01****BEST EXECUTION ANALYSIS SERVICE**

- Trade Analytics (UK) Limited

**2016FRR04****ANALYSIS SERVICE FOR NON-FINANCIAL  
RISKS TO THE FRR'S PORTFOLIO**

- Vigeo SAS

# The FRR's investment management companies at 31 March 2017

**2005FRR05****PRIVATE EQUITY PROGRAMME**

- Access Capital Partners (European small and mid-caps fund)
- Ardian Investment (AXA Private Equity Europe), (Secondary LBO fund)
- Neuberger Berman Europe Limited (North American diversified fund)
- Pantheon Ventures (UK) LLP (European diversified fund)

**2010FRR05****PASSIVE MANAGEMENT MANDATES – LOT 1  
– MATCHED BOOK MANAGEMENT**

- Allianz Global Investors
- Amundi Asset Management
- AXA Investment Managers
- BNP Paribas Asset Management
- Natixis Asset Management

**2010FRR05****PASSIVE MANAGEMENT MANDATES – LOT 2  
– DEVELOPED COUNTRY BONDS –  
INVESTMENT GRADE**

- CCR Asset Management (UBS AG Zurich)

**2011FRR07****ACTIVE MANAGEMENT MANDATES – LOT 1 –  
SRI EQUITIES-THEME-BASED COLLECTIVE  
FUND MANDATES**

- BNP Paribas Asset Management

**2011FRR07****ACTIVE MANAGEMENT MANDATES – LOT 2 –  
SRI EQUITIES-EUROPE EQUITIES: NEW  
SUSTAINABLE GROWTH**

- AXA Investment Managers
- Kempen Capital Management (UK) Limited
- La Financière de l'Échiquier

**2012FRR03****TRANSITION OPERATIONS MANAGEMENT**

- BlackRock Advisors (UK) Limited
- Goldman Sachs International
- Russell Implementation Services Limited

**2013FRR01****ACTIVE MANAGEMENT MANDATES – LOT 1 – EUROPEAN SMALL-CAPS**

- Fidelity Gestion SAS (Fil Gestion)
- Montanaro Asset Management
- Threadneedle Asset Management Limited
- Standard Life Investment Limited

**2013FRR01****ACTIVE MANAGEMENT MANDATES – LOT 2 – FRENCH SMALL AND MID-CAPS**

- CM-CIC Asset Management
- CPR Asset Management
- Generali Investments Europe
- Oddo Asset Management
- Sycomore Asset Management

**2013FRR02****ACTIVE MANAGEMENT MANDATES – LOT 1 – US LARGE AND MID-CAPS – VALUE**

- Old Mutual Asset Management
- Robeco Institutional Asset Management B.V.
- Wells Fargo Securities International Limited

**2013FRR02****ACTIVE MANAGEMENT MANDATES – LOT 2 – US LARGE AND MID-CAPS – GROWTH**

- JP Morgan Asset Management (UK) Limited
- T.Rowe Price International Limited
- Wells Fargo Securities International Limited

**2013FRR05****ACTIVE MANAGEMENT MANDATES – JAPANESE EQUITIES**

- Capital International Limited
- JP Morgan Asset Management (UK) Limited
- Schroder Asset Management Limited

**2014FRR03****OVERLAY MANAGEMENT MANDATES**

- Russell Implementation Services (UK) Limited
- State Street Global (France) Advisors

**2015FRR01****ACTIVE MANAGEMENT MANDATES – CORPORATE BONDS – LOT 1 – EURO-DENOMINATED CORPORATE BONDS**

- Allianz Global Investors GmbH
- AXA Investment Managers
- HSBC Global Asset Management
- Insight Investment Management (Global) Limited
- Kempen Capital Management N.V.
- La Banque Postale Asset Management

**2015FRR01****ACTIVE MANAGEMENT MANDATES – CORPORATE BONDS – LOT 2 – US DOLLAR-DENOMINATED CORPORATE BONDS**

- AXA Investment Managers (AXA Investment Managers Inc. – USA)
- BFT Investment Managers (MacKayShields LLC, USA)
- BlackRock Investment Management (UK) Limited (BlackRock Financial Management Limited – USA)
- Morgan Stanley Investment Management Limited (Morgan Stanley Investment Management Inc. – USA)
- Wells Fargo Securities International Limited (Wells Capital Management, Inc. – USA)

**2016FRR01****BEST EXECUTION ANALYSIS SERVICE**

- Trade Analytics (UK) Limited

**2016FRR04****ANALYSIS SERVICE FOR NON-FINANCIAL RISKS TO THE FRR'S PORTFOLIO**

- Vigeo SAS

**2015FRR02****OPTIMISED MANAGEMENT MANDATES – EQUITIES – WITH AN ESG APPROACH**

- Amundi Asset Management
- Robeco Institutional Asset Management B.V.
- Candriam Luxembourg

**2016FRR02**

DEDICATED FUND MANDATES – FRENCH  
COMPANIES' PRIVATE DEBT – LOT 1 –  
PRIVATE INVESTMENTS

- BNP Paribas Asset Management
- Schelcher Prince Gestion

**2016FRR02**

DEDICATED FUND MANDATES – FRENCH  
COMPANIES' PRIVATE DEBT – LOT 2 –  
ACQUISITION DEBT

- Idinvest Partners
- Lyxor International Asset Management

**2017FRR01**

SERVICE ANALYSING AND MEASURING THE  
FRR PORTFOLIO'S ENVIRONMENTAL  
FOOTPRINT

- S&P Trucost (UK) Limited

# Requests for proposals in progress at 31 March 2017

**2016FRR03**

DEDICATED FUND MANDATES – SELECTION  
OF PRIVATE EQUITY FUNDS

**2016FRR05**

DEDICATED FUND MANDATES – INNOVATION  
CAPITAL FRANCE

**2017FRR02**

MANAGEMENT MANDATES – OAT MATCHING



Designed and produced by: **avant**garde

This document was printed on paper made from wood fibre from forests certified as being sustainably managed in accordance with environmental, economic and social standards.



56, rue de Lille – 75007 Paris

tel.: 33 (0)1 58 50 99 12

[www.fondsdereserve.fr](http://www.fondsdereserve.fr)

Twitter: @FondsdeReserve