02.

THE SCHEME'S LONG-TERM **EQUILIBRIUM**

Retraite additionnelle de la Fonction publique

02.

THE SCHEME'S LONG-TERM **EQUILIBRIUM**

ERAFP:
KEY FIGURES*

ASSETS
OF AROUND
€19.8 BILLION

ESTIMATED
FINANCIAL COVERAGE RATIO
OF AROUND 113%

TECHNICAL RESERVES OF
AROUND €17.5 BILLION

NON-TECHNICAL RESERVES
OF €2.3 BILLION

DISCOUNT RATE SET AT 1%**

***** valuation at end-2015.
****** discount rate net of management fees, set using a method that takes into account the re-investment risk.

NEW **PREMIUM** **RATE** FEATURES

During the financial crisis and faced with the ongoing economic crisis, the Scheme has always successfully covered all its commitments to contributors and retired beneficiaries.
ERAFP's long-term investment approach is based on:
- a particularly conservative approach for defining the technical parameters;
- an asset allocation designed to ensure the Scheme's equilibrium over the long term.

Faced with declining interest rates at the same time as lengthening average life expectancy, the board of directors resolved at its meeting of 5 February 2015 to take measures that will provide a better balance between the Scheme's commitments and the assets that secure these commitments. Accordingly, from 2015 the new premium rate will reduce the technical return on contributions from 4.075% to 3.899% in 2015 and then to 3.739% in 2016.

These measures reflect the impact of an a priori lasting decline in returns on bonds, which still constitute the majority of the Scheme's portfolio. In this context, the increased diversification of the Scheme's assets made possible by the new investment framework represents a means of improving the long-term returns on the benefits paid to its beneficiaries. Taking into account this new equilibrium, ERAFP updated the discount rate formula for 2015 reserves.

3.899%
TECHNICAL RETURN
IN 2015

3.739%
TECHNICAL RETURN
IN 2016

GUIDELINES FOR TECHNICAL PARAMETERS

RAFP is subject to strict prudential regulation stipulating that:
- the Scheme's commitments to its beneficiaries must be at least fully covered by assets;
- the likely present value of these commitments must be calculated using a conservative discount rate (i.e. consistent with the conservatively estimated return on the Scheme's assets).

The board of directors is responsible for ensuring this financial equilibrium.

The board of directors is acutely conscious of its regulatory and prudential responsibilities and accordingly has adopted written guidelines for managing the Scheme's technical parameters with a view to maintaining over the long term the purchasing power of beneficiaries' vested pension rights.

Since the Scheme was formed, the board of directors has carefully monitored changes in the following parameters:
- the purchase and service values of points;
- the coverage ratio of Scheme commitments;
- the discount rate applied to reserves;
- the technical interest rate or 'premium rate'.

The guidelines recognise the existence of the inter-relationship between the Scheme's ability to revalue vested rights and its assets, and also set out the conditions in which the premium rate may be revised.

COMMITMENTS COVERAGE RATIO

THE SCHEME'S ECONOMIC COVERAGE RATIO WAS 122 % AT 31 DECEMBER 2015.

The obligation to cover the Scheme's commitments at all times implies careful monitoring of the financial coverage ratio. At the end of 2015, this ratio stood at approximately 113% (estimated, unaudited figure).

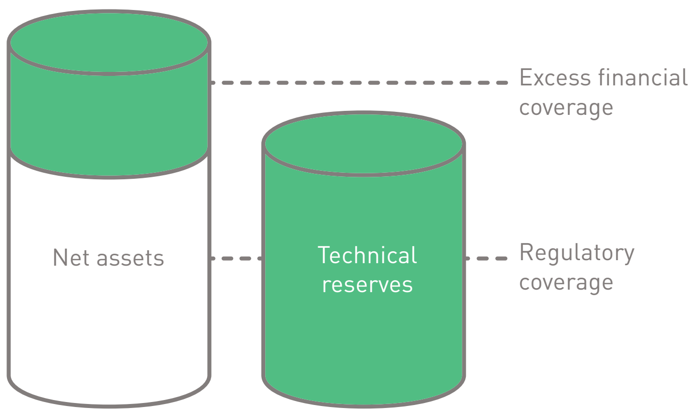
Mindful of its regulatory obligations, the Scheme has the necessary reserves and provides satisfactory coverage of its commitments. Nonetheless, the continuing particularly low level of bond yields seen in the market in 2015 calls for a highly prudent approach to steering these parameters.

As a complement to this first approach, ERAFP has sought to better define its capacity to revalue contributors' and beneficiaries' rights over the long-term horizon in which it operates. Accordingly, it has defined an 'economic' coverage ratio, which takes into account the latent value of the Scheme's assets[1] as well as the risks for which a margin of prudence should be recognised. This margin is defined as the 'excess economic coverage requirement'. If this requirement is not met, regardless of the financial coverage ratio, the service value of a point may not be increased. At the end of 2015, the excess economic coverage requirement was measured at 15.3% of commitments.

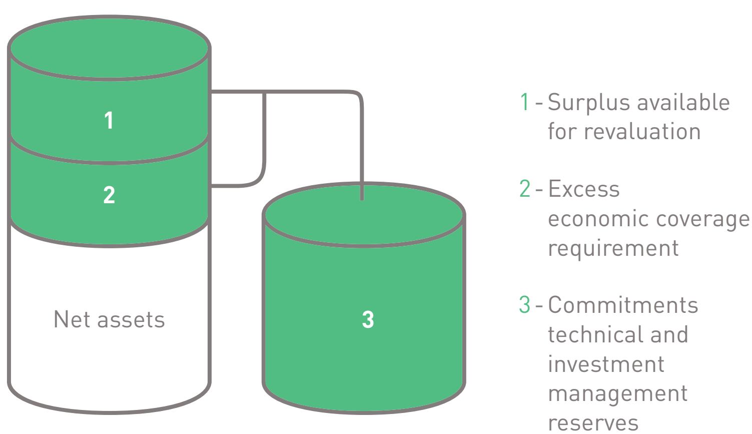
The Scheme's economic coverage ratio, before revaluation, was approximately 122% (estimated figure) at 31 December 2015.

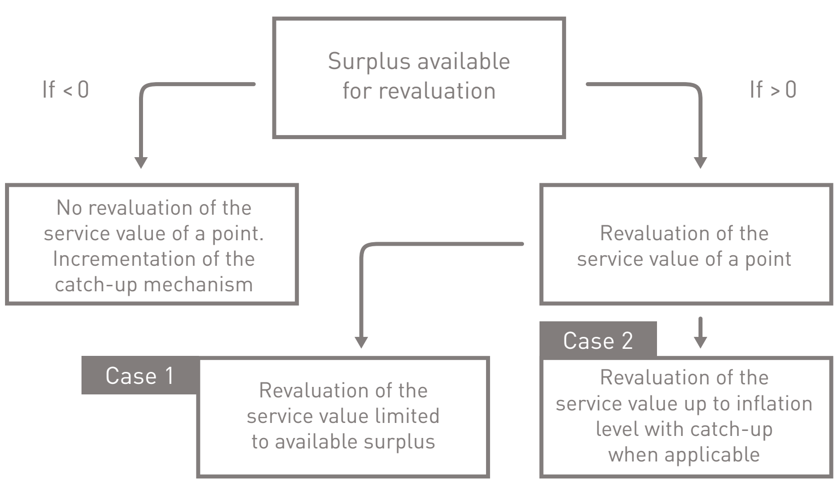
1 The economic coverage ratio corresponds to the relationship between, on the one hand, bonds valued at amortised cost and all other assets at market value and, on the other hand, the technical and investment management reserve.

FINANCIAL APPROACH



ECONOMIC APPROACH





THE BOARD RESOLVED TO INCREASE THE SERVICE VALUE OF A POINT BY 0.2%

DETERMINATION OF THE PURCHASE AND SERVICE VALUES OF POINTS

The board of directors sets these parameters each year. Since adoption of the guidelines, it takes into account the excess economic coverage requirement.

The mechanism set out in the guidelines effectively links any revaluation of points to the economic coverage ratio. If the points revaluation is lower than the inflation rate, particularly if the coverage ratio is inadequate, a mechanism is implemented in subsequent years to allow increases in the purchase and service values of points to catch up with inflation.

On 5 February 2015, the board of directors resolved to increase the purchase value of a point by 4.5% in both 2015 and 2016 in the context of changes to the premium rate pursuant to the guidelines. It then resolved on 16 February 2016 to increase the service value of a point by the inflation rate observed in 2015 of 0.2%.

As a result, the Scheme's technical return came to:

3.899% in 2015;
3.739% in 2016.

The higher rate of increase in the purchase value of new Scheme points compared to their service value will affect all contributors, but will have no impact on pensions already in payment.

POINT PURCHASE AND SERVICE VALUES

Source — ERAFP

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Purchase value (€)	1	1.017	1.03022	1.03537	1.04572	1.05095	1.05620	1.07420	1.0850	1.09585	1.1452	1.1967
Change	—	+1.70%	+1.30%	+0.50%	+1%	+0.50%	+0.50%	+1.70%	+1%	+1%	+4.5%	+4.5%
Service value (€)	0.04	0.0408	0.04153	0.04219	0.04261	0.04283	0.04304	0.04378	0.04421	0.04465	0.04465	0.04474
Change	—	+2.00%	+1.80%	+1.60%	+1%	+0.50%	+0.50%	+1.70%	+1%	+1%	0%	+0.2%

DISCOUNT RATE APPLIED TO RESERVES

The Scheme's reserve discount rate is set at a very conservative level, particularly compared with the practices of other European pension funds. It takes into account the decline in bond yields seen in recent years.

As a result of changes in the investment regulatory framework in 2015, which enable the Scheme to further diversify its asset allocation, certain parameters of the discount rate formula were updated for 2015, notably by including a conservative, flat-rate return for equities and gradually phasing out the dilution effect of contributions. These adjustments relied on the observation of the income generated by the equities in ERAFP's current portfolio and by past investments, while maintaining a prudential margin.

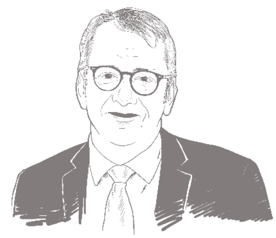
The discount rate (net of fees) used to assess the technical reserve at 31 December 2015 was set at 1%, the same level as in 2014.

The regulatory minimum level of management fees was 0.25%. This minimum level is used in the discount rate formula, in order to reflect the economic realities faced by the Scheme[2]. The discount rate gross of fees consequently came to 1.25%.

TECHNICAL INTEREST RATE, OR 'PREMIUM RATE'

On the Scheme's inception, the initial annuity was calculated on the basis of a technical interest rate (premium rate) net of inflation set at 1.34%, reflecting a return on reference assets of 3.34%. The real return of 1.34% was determined based on a long-term inflation rate of 2%, corresponding to the ECB's maximum target rate.

These parameters are no longer in line with the current economic and financial conditions. The Scheme's premium rate has therefore been revised to make it consistent with market rates by increasing the purchase value as described above and raising the pivotal age for application of the premium[3]. The guidelines provide for an immediate revision of the Scheme's premium rate if, at the end of a financial year, the discount rate gross of fees is lower than the premium rate.



ÉRIC POGLIO,
CHAIR OF THE ASSET AND LIABILITY MANAGEMENT COMMITTEE

Reflecting the regulatory changes that came into force in 2015, the proportion of equities in our portfolio is growing. This diversification is necessary in a period of ultra-low bond yields. In order to factor this into our discount rate, the forecast return on equities was set at a prudent level, but higher than zero, the value used previously. This decision by the board of directors, taken in 2016, is realistic from a financial point of view and in line with the continuous pursuit of appreciation of public sector employees' contributions.

2 See: management fees in the first part, page 22.
3 The technical return rate resulting from these changes is equivalent to setting the premium rate at 0.90%.

AUDITED FINANCIAL STATEMENTS

THE BOARD APPROVED **THE 2014 FINANCIAL STATEMENTS**

Whereas the time frame for producing the financial statements had been reduced in 2014 to allow the board of directors to approve them in the first half-year, while maintaining the quality of the accounting data, the board was not able to approve the 2014 financial statements in 2015 because of its period of vacancy.

The financial statements were approved at the earliest opportunity, which was at the newly appointed board's meeting on 16 February 2016.

After auditing the valuation processes for reserves, the independent auditors certified the fairness and accuracy of the 2014 financial statements without any qualifications, as in previous years.

RENEWED ASSET ALLOCATION IN THE SERVICE OF THE ECONOMY

ERAFP's investment policy aims to reconcile financial performance, risk management and socially responsible commitment within a strategic asset allocation approved by the board of directors.
In 2015, ERAFP continued to acquire the tools and resources needed to invest in new asset classes while simultaneously deepening its SRI approach.

CHANGES IN THE INVESTMENT REGULATIONS

The decree of 3 February 2015 amending the investment rules applicable to the public service additional pension scheme and the implementation decree of 10 March 2015 set out the following in particular:

- **a broader list of authorised assets** to enhance the Scheme's contribution to financing companies and improve the outlook for future returns;
- **the proportion of assets that may be invested** in equities or UCITS is increased to 40%;
- **3% of assets** may be invested in unlisted funds and 3% in funds securitising loan receivables on SMEs and intermediate-sized enterprises (ETI) *(fonds de prêts à l'économie)*;
- **the possibility of investing** directly up to 3% of total assets.

Continuing its approach of seeking a socio-economic impact through its investments, ERAFP will start using this new room for manoeuvre from 2015, notably to help develop the French economy and finance European small and medium-sized enterprises.

THE PROPORTION OF ASSETS THAT MAY BE INVESTED IN EQUITIES OR UCITS IS INCREASED TO 40%

CONTRIBUTING €350 MILLION **TO THE FINANCING OF EUROPEAN SMES**

FINANCING THE FRENCH ECONOMY WITH €8.8 BILLION, REPRESENTING 45% **OF ITS TOTAL ASSETS** AT AMORTISED COST

DEVELOPING THE FRENCH ECONOMY AND FINANCING SMES

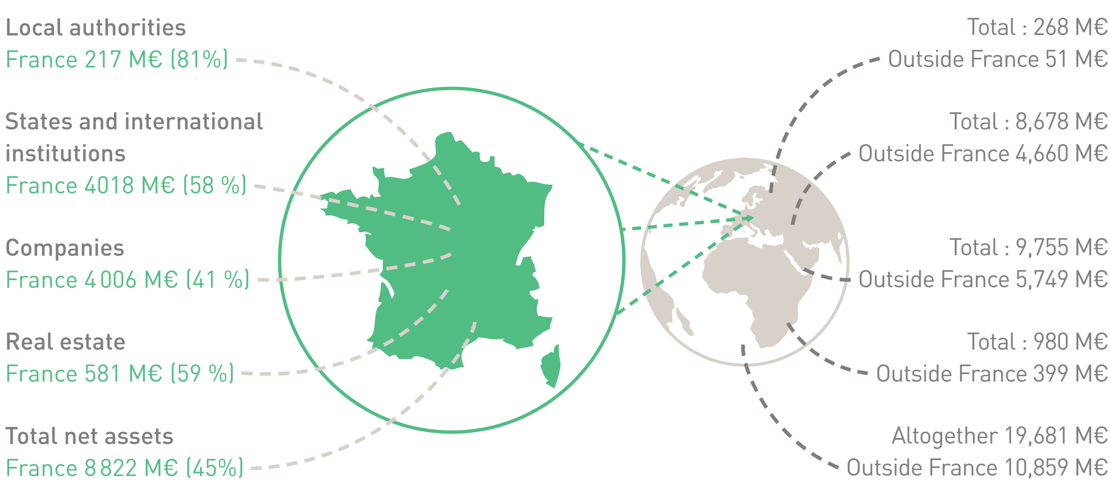
The public financial sector can serve as a relay when access to credit by economic players becomes more difficult as a result of an economic slowdown[4]. ERAFP is able to perform this contra-cyclical function. Because it is still only at the beginning of its expansion phase, the additional pension scheme will generate an average positive net cash flow of €2 billion in each of the next ten years. It is therefore in the unusual position of being able to support the organisations in which it invests over the long term.

Unlike banks, which use transformation to convert short-term sources into funding for longer-term applications, by its nature the Scheme has access to ultra-long-term funding. It is therefore free from short-term management constraints and can hold portfolio securities for long periods of time.

This high liquidity is a strategic advantage in financing long-term investment projects, or even very long-term, more structural projects such as extensions to infrastructure networks and encouraging innovation and small enterprises.

In 2015, ERAFP provided finance to the French economy, in the broadest sense, of €8.8 billion, representing 45% of its total assets at amortised cost.

INVESTMENTS IN FRANCE AND GLOBALLY BY ASSET CLASS AT 31 DECEMBER 2015



4 'The State and financing the economy', special report by the French national audit office, July 2012.

European SMEs have seen their access to financing deteriorate in the years following the sharp credit contraction of 2008-2009[5]. And yet financing these investments, which have a material impact on employment and the economy's capacity for innovation, is a key way of growing the economy.[6]

ERAFP contributed €350 million to the financing of European SMEs in 2015, up from around €260 million in 2014. ERAFP is involved at various stages of the development of SMEs and ETIs:

- **it invests** in listed SMEs and ETIs through the management mandates awarded to BNPP AM, Sycomore AM and, since 2015, Amiral Gestion, as well as through the multi-asset mandate held by Amundi;
- **it made** its first direct investments in the NOVI 1 and 2 funds available on the market to invest in SMEs and ETIs through listed and unlisted equities as well as through listed bonds;
- **it contributes** to the financing of unlisted SMEs and ETIs through loan securitisation funds (particularly the NOVO funds) in which Amundi invests under its management mandates from ERAFP;
- **it makes** private equity investments in unlisted SMEs through the multi-asset mandate held by Amundi.

Housing for public sector workers in areas with a high housing cost

Moreover, in June 2015, ERAFP increased its stake in the Fonds de Logement Intermédiaire through its real estate manager AEW Europe SGP. This fund facilitates access to housing in areas where rents are high in relation to disposable incomes. By offering rents at a discount to market rates, the thousands of housing units set to be provided represent a mid-way solution between private and social housing for people with incomes sufficiently high to preclude them from accessing the latter.

At end-2015, ERAFP had committed €60 million. The Scheme holds a right of first refusal for its 5.7% share in the fund enabling it to delegate the allocation of housing units to public sector employees. Over the fund's duration, around 600 housing units will be made available to public servants and contracted staff unable to find housing, mainly in France's larger cities.

ALAIN DORISON, HONORARY INSPECTOR GENERAL OF FINANCE

The experimentation underway at ERAFP is a first illustration of the major, ambitious project to facilitate access to housing for public sector workers in areas with a high housing cost to disposable income ratio. It is a project that will enable private and public sector investors to pool their resources in order to make a profitable, socially responsible investment.

ERAFP, a driving force behind this movement, is as such acting in accordance with its investment guidelines, which allow some of its investments to be used to directly assist its public sector contributors.

I sincerely hope that this first example will be widely followed and will give rise to other initiatives.

5 Source: OECD (The financing of SMEs and entrepreneurs in 2013, key indicators).
6 Source: Economic analysis council (2006 report - An SME strategy for France).

THE SCHEME'S FINANCIAL MANAGEMENT IN 2015

AROUND €1.83 **BILLION RECEIVED IN CONTRIBUTIONS** IN 2015

€1.95 BILLION **INVESTED** IN 2015

Guidelines

In order to take into account changes in the investment framework introduced early in the year, at its meeting of 26 March 2015 the board of directors voted to continue to diversify the Scheme's investments, in particular by investing in euro-zone small, mid and large cap equities and real estate. Similarly, it voted in favour of continued international diversification of its portfolio, introducing a new asset segment comprising unlisted, private equity and infrastructure investments.

Around €1.83 billion was received in contributions in 2015. As a long-term investor, ERAFP seeks to invest its annual cash inflows to optimise returns on its portfolio while keeping risk at an acceptable level for the Scheme. In 2015, the internal rate of return[7] on the overall portfolio was 4.0%, reflecting the ERAFP portfolio's market performance. Bond assets aside, which had appreciated significantly in 2014 as bond yields fell, this performance was higher than the previous year's.

During the year, bonds (including convertible bonds) accounted for 33% of investment inflows, or €644 million, of which most was in corporate bonds. Net investments in equity mandates totalled €615 million, or 31.4% of investment flows. The real estate portfolio received investments of €433 million, or 22% of flows. The multi-asset fund received substantial investments of €246 million, or 12.6% of flows. Lastly, the first disbursements made for the NOVI funds, which are classed in a new segment,

INVESTMENT FLOWS BY ASSET CLASS IN 2015

Source — ERAFP

	Investissements 2015	
Actifs	In millions of euros	percentage
Bonds	644.4	33.0%
Of which, corporate bonds	*500.1*	*25.6%*
Equities	614.6	31.4%
Multi-asset	246.0	12.6%
Other pensions	16.4	0.8%
Real estate	432.9	22.2%
Total	**1,954.3**	**100%**

7 The internal rate of return (IRR) is a measure of the relevance of investment allocation within a portfolio. It differs from performance in that it takes into account the timing of investment and divestment flows or, in the case of delegated asset management, subscriptions and redemptions.

'Other funds', came to €16 million, with ERAFP's total amount committed to these funds reaching €50 million.

At the beginning of 2015, the bond portfolio excluding convertible bonds represented 72% of the Scheme's assets. ERAFP invests for the long term and aims to hold its bond investments until maturity. Any divestments are usually in the context of arbitrage transactions to improve asset-liability matching or, more marginally, to take advantage of specific market situations. ERAFP is therefore required to limit purchases of securities the returns on which would materially reduce the portfolio's average yield or which present a high default risk.

With an average duration of 7.7 years, the portfolio's average yield-to-maturity at end-2015 was 3.37%[8], down from 3.46% in 2014.

The performance contributed by the other asset classes partially offset the impact of the main bond yields staying at particularly low levels. The equity portfolio performed relatively well, at 11.8%, outperforming the 2014 result (6.17%) in a favourable market context. Convertible bonds also benefited from this context and at 3.9% again performed better than in 2014 (3.15%). In the multi-asset segment, asset classes and geographical regions turned in mixed performances over the year, showing an overall gain of 0.5% after the excellent performance of 2014 (10.6%). Most new investments were carried out in the first six months of the year, with exposure to emerging assets being reduced in the early part of the summer, thus protecting the segment from underperformance in the second six months. The slightly negative performance of unlisted assets (-0.6%) is not significant as it reflects the first, limited-amount investments made in this category. The real estate portfolio delivered a performance of 6.7% in 2015, up from 0.76% in 2014 thanks to the reversal of reserves set aside in respect of shares in non-trading real estate investment companies for the amortisation of acquisition costs and to the recovery of the real estate investment market, which generally takes place before that of the wider economy.

AT THE BEGINNING OF 2015, **THE BOND PORTFOLIO EXCLUDING CONVERTIBLE BONDS** REPRESENTED 72% OF THE SCHEME'S ASSETS.

8 Excluding inflation – 3.72% for inflation of 2%.

ANNUALISED INTERNAL RATE OF RETURN BY MARKET VALUATION AT 31 DECEMBER 2015

Source — ERAFP

Convertible bonds	3.9%
Euro-zone equities	12.1%
International equities	11.1%
Multi-assets	0.5%
Non-listed equities and others	-0.6%
Real estate	6.7%
Global Portfolio	**4.0%**

4% ANNUALISED **INTERNAL RATE OF RETURN** BY MARKET VALUATION IN 2015

Operations

Pursuant to the applicable regulations, the majority of management is delegated to asset management companies.

For delegated management, the use of multi-manager mandates enables financial risk to be spread over several service providers; this is a prudent choice in the management of assets administered on behalf of beneficiaries.

Other than for the euro-denominated corporate bond mandates, each of the asset management companies created a dedicated investment fund in which ERAFP invests based on market conditions following a fully internal investment process. Investments are made in each fund based on its overall performance and ERAFP's investment strategy.

In 2015, ERAFP:

- **re-awarded the mandates for euro-denominated corporate bonds (5 March),** including three active mandates to Amundi, La Banque Postale AM and Natixis AM, as well as two stand-by mandates to Candriam and Groupama AM;
- **awarded three Pacific-region equity mandates (12 May),** including two active mandates for Comgest SA and Robeco Institutional Asset Management and a stand-by mandate for Allianz Global Investors GmbH;
- **activated the stand-by mandate awarded to Amiral Gestion (9 June)** for the management of a French small cap equity portfolio.

At the end of 2015:

- **three companies** (Amundi, La Banque Postale AM and Natixis AM) were managing euro-denominated corporate bonds;
- **one company** (AXA Investment Managers Paris) was managing US dollar-denominated corporate bonds;
- **two companies** (Schelcher Prince Gestion and Lombard Odier Gestion) were managing convertible bonds, one under a European mandate and the other under an international mandate;
- **six companies** (Amundi, Axa Investment Managers Paris, BNP Paribas Asset Management, Edram, Rothschild et Cie Gestion and Tobam AM) were managing equities of large, listed euro-zone companies;
- **one company** (BNP Paribas Asset Management) was managing euro-zone small and mid-cap listed company equities;
- **two companies** (Sycomore AM and Amiral Gestion) were managing SME equities listed in France;
- **two companies** (Natixis AM and Robeco Institutional Asset Management) were managing equities of large, listed North American companies;
- **two companies** (Comgest SA and Robeco Institutional Asset Management) were managing equities of large, listed Pacific-region companies;
- **one company** (Amundi) was managing a multi-asset portfolio;
- **two companies** (AEW Europe SGP and La Française REM) were managing French real estate assets;
- **two companies** (AXA Real Estate Investment Managers SGP and LaSalle IM) were managing European real estate assets.

CHRONOLOGY OF FINANCIAL EVENTS IN 2015

In 2015, global growth failed to reach the level forecast at the beginning of the year, coming in at an estimated 3.1% compared with an expected 3.7% (based mainly on IMF forecasts). Developed country economies outperformed those of emerging and developing countries, which still account for 70% of global growth. Weak global demand contributed to the sharp decline in commodity prices, particularly that of oil. This fall-off weighed considerably on inflation rates, which moved temporarily into negative territory.

THE EUROPEAN CENTRAL BANK **STARTED BROADENING ITS FINANCIAL ASSET PURCHASE** PROGRAMME TO INCLUDE SOVEREIGN BONDS

In order to eliminate deflation risk and create the conditions needed for more sustained growth, on 22 January 2015 the European Central Bank announced the broadening of its financial asset purchase programme to include sovereign bonds. This began on 9 March 2015 with the purchase of an average of €60 billion of financial assets (including asset backed securities, or ABS, and covered bonds) per month until inflation returns to near the 2% target level, and at the earliest September 2016. Faced with near-zero-% inflation and risks related to fresh falls in the oil price, on 3 December 2015 the ECB ramped up its asset purchase programme even further, extending it until at least March 2017, with redemptions of maturing securities to be reinvested as long as necessary.

Meanwhile, throughout the year the US Federal Reserve prepared investors for a normalisation of its monetary policy. On 16 December 2015, it ended the zero-rate policy pursued since December 2008 with its first key interest rate hike, of 25 basis points from 0.25% to 0.50%.

The slowdown of China's economy led its central bank, the People's Bank of China (PBoC) to relax its monetary policy and adjust its foreign exchange policy. In August, the PBoC devalued the yuan by 2% against the US dollar and changed the method of setting its reference rate to manage it from now on in relation to a basket of currencies, thus making it more flexible.

**ÉTABLISSEMENT
DE RETRAITE
ADDITIONNELLE
DE LA FONCTION
PUBLIQUE**
12, rue Portalis - CS 40 007
75381 Paris Cedex 08
www.rafp.fr

Follow us on @_ERAFP_

ISSN 2261-0073 Service communication -
alice.blais@erafp.fr ; enora.budet@erafp.fr