PUBLIC REPORT 2016
RAFP or ERAFP?
Article 76 of the 21 August 2003 pension reform law created a mandatory public service additional pension scheme - known as ‘retraite additionnelle de la fonction publique’, or RAFP - under the 18 June 2004 decree 2004-569. RAFP therefore generically describes the Scheme created through this law, but not the legal entity itself. ERAFP, or ‘Établissement de retraite additionnelle de la fonction publique’, is the public sector administrative entity charged with the Scheme’s management.

Legal references
Article 76 of the French pension reform law 2003-775 of 21 August 2003
Decree 2004-259 of 18 June 2004 on the French Public Service Additional Pension Scheme
Statutory order of 26 November 2004, as amended, implementing decree 2004-569 of 18 June

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In 2016, ERAFP updated a number of tools required for its role as an investor and the efficiency of the Scheme’s long-term operation.

The first year of the board of directors’ new term of office saw its various bodies meeting regularly throughout the year in a constructive working atmosphere. Before concentrating on how next to diversify our investments, we needed a clear framework that took into account the fundamental changes affecting our business. I am delighted that we were able to achieve the collective objectives set in this area within a year.

The board of directors first scaled up the inclusion of non-fixed-income assets in the discount rate. Whereas the calculation formula had been developed before the process of gradually diversifying the portfolio of assets into equities, real estate, private equity and infrastructures, the Scheme’s discount rate applied to reserves now reflects the balance between bonds and variable-income assets for which the board of directors now aims, thereby offering greater coherence.

We then finalised our agreement with Caisse des Dépôts on objectives and management between 2016 and 2020, creating a vision shared by our two institutions of the objectives set in this area within a year. I am delighted that we were able to achieve the collective objectives set in this area within a year.

Another updating project – perhaps the most significant – concerned our SRI Charter. Ten years after its adoption on the Scheme’s launch, the board of directors has adapted it to the most pressing challenges for a socially responsible investor such as ERAFP: the need for an ecological transition to combat climate change; the responsibility of large groups faced with the risk of breaches of international standards – especially in their supply chain – and the fight against tax havens. Beyond these adjustments, ERAFP’s priority is now also to increase the impact on the economy and society of its choices as an investor. While the new SRI Charter aims to better measure the related social and economic dimensions, we are rephrasing our investment policy on assets that can have a real impact, with a near doubling of financing for non-fixed-income assets as a whole. It is important to consider at a broader level the limits established by the provisions in force for non-fixed-income assets as a whole. Indeed, despite a limited rise in yields after last summer’s historical lows, bond markets continue to be ruled largely by central banks’ actions.

Notwithstanding the various asset classes’ specific characteristics in terms of volatility, that volatility does not affect them in the same way. ERAFP’s commitments are very long-term and their average life is around 30 years. As in addition the Scheme benefits from a net positive cash flow of around €2 billion, it is clear that in its case volatility is not a good risk indicator. Following that argument, we have begun to review how a long-term investor should communicate its investment returns. This ties in with the ongoing debate among large public pension funds – in Japan, Sweden and the United States in particular –faced with the absurdity of a situation in which they issue quarterly results despite managing commitments over several decades, or are expected to explain losses (as presented by the press) that in the large majority of cases are actually unrealised capital losses. In the long term, a solution would be to produce and issue performance figures that are consistent with the length of commitments. Through this report, we are initiating such an exercise by presenting, alongside the annual performance, a performance measured over a longer period.

ERAFP’s investments must generate a sufficient return to increase the value of public servants’ contributions. Now they can also help provide them with better housing.

As the end of 2016, we signed our first agreement with the French State for the reservation of housing units for public sector employees, an intermediate housing fund (Fonds de logement intermédiaire) initiative. Thanks to ERAFP’s investments, around 600 housing units can be allocated to active contributors in the years to come. This proof that it is possible to combine the profitability of long-term investments on behalf of public servants with an initiative for accommodating them in high-pressure housing areas argues for an extension of this experiment.

Among other things, we will need to broaden such a mechanism as soon as possible to the hospital and local and regional authority divisions of the public sector. Because all public servants contribute to it, the RAFP can contribute to meeting the needs of those who implement public services and, first and foremost, those experiencing housing difficulties. To go further, we need to continue our investments in the residential real estate sector, which fits in with our requirement for increased diversification of our investments. Although it is not ERAFP’s role to participate in the definition of housing policy, its board of directors has repeatedly voiced its wish for an increase in the regulatory ceiling for the Scheme’s real estate investments. To make the most of this room for manoeuvre, it will define its principles for participating, as an investor, in public sector employee housing initiatives. Beyond this development, it is important to consider at a broader level the limits established by the provisions in force for non-fixed-income assets as a whole. Indeed, despite a limited rise in yields after last summer’s historical lows, bond markets continue to be ruled largely by central banks’ actions.

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I am delighted that we were able to achieve the collective objectives set in this area within a year.
A unique scheme, operational since 2005

RAFP’S MAIN ROLES

Operational since 2005, the French Public Service Additional Pension Scheme (RAFP) is a unique scheme.

Providing an additional pension to public sector employees

Thanks to the Scheme, close to 4.5 million contributors will receive additional pension benefits. Their contributions are based largely on bonuses and are topped up by some 44,000 public sector employers. Contributions totalled €1.83 billion in 2016.

Founded on inter-generational equity

RAFP is the only French pension fund to have made inter-generational equity a core component of its governance and management. This commitment is reflected in particular through the implementation of a points-based system with a single purchase value.

Promoting public service values

Since the Scheme was set up, the board of directors has striven to put into practice its fiduciary responsibility to its contributing public sector employees and beneficiaries.

Accordingly, it has developed an ambitious programme to institute a socially responsible investment (SRI) policy founded on public service values. This policy takes into account environmental, social and governance criteria in all of the Scheme’s investment decisions.

Faced with the public’s increasingly high expectations of financial players, and complementing its desire to raise awareness of its approach among the Scheme’s contributors and beneficiaries, ERAFP seeks to demonstrate that investors have a role to play, in the service of public interest, in the transition to a carbon-free economy.
THE WORK OF THE BOARD OF DIRECTORS

After the board of directors’ period of vacancy in 2015, the year 2016 paved the way for the return of a sustained pace of work by the pension scheme’s bodies. When it resumed its duties, starting in January 2016, the board made a certain number of decisions that it should have made in 2015.

NEW APPOINTMENTS TO THE BOARD OF DIRECTORS

Pursuant to the statutory order of 8 February 2016, Philippe Hello was appointed a full member of the board of directors, replacing Jacques Feytis.

Pursuant to the statutory order of 13 May 2016, Gilles Calvet was appointed an alternate member of the board of directors, replacing Francis Voillot.

Pursuant to the statutory order of 28 June 2016, Jean-Luc Gibelin was appointed a full member of the board of directors, replacing Éric Loiselet.

Pursuant to the statutory order of 5 September 2016, Mylène Orange-Louboutin was appointed full member of the board of directors, replacing Isabelle Braun-Lemaire.

MAIN DECISIONS ADOPTED IN 2016

Pursuant to a decision of 12 January 2016, the board of directors determined the composition of the specialist committees responsible for preparing its decisions.

Pursuant to a decision of 16 February 2016 and the decision in 2015 to reprice the Scheme, the board of directors increased the service value of a point by 0.2% and its purchase value by 4.5%.

At its meeting on 16 February 2016, the board of directors decided to continue to diversify the asset portfolio into equities, real estate, private equity and infrastructures, particularly in the service of the French economy and European small and medium-sized enterprises.

Pursuant to a decision of 7 April 2016, the board of directors updated certain parameters of the formula for the discount rate applied to reserves.

Pursuant to a decision of 28 June 2016, the board of directors approved the 2016-2020 objectives and management agreement with Caisse des Dépôts.

Pursuant to a decision of 13 December 2016 and in application of the Scheme’s technical parameter drafting guidelines, the board of directors made a symmetrical 0.3% increase to the purchase value and the service value of a point.

At its meeting on 18 October, the board of directors adopted an updated version of ERAFP’s SRI Charter.

A few months after his term ended as a member of the board of directors, Éric Loiselet died. ERAFP and its board of directors owe much to Éric for the enhancement of the Scheme’s socially responsible investment approach in recent years, with notably the development of the institution’s guidelines on shareholder engagement, in particular with regard to the “responsible dividend” concept that he helped originate and which is based on the idea of sharing added value fairly among a company’s various stakeholders.

WORK BY THE BOARD’S BODIES IN 2016

ERAFP’s board of directors met six times in 2016.

The board’s sub-committees met 41 times in all during the year. Directors were also able to take part in four training days on financial and socially responsible investment issues.

The above attests to the directors’ commitment to the Scheme’s business in this new term of office.

PERSONNALITÉS QUALIFIÉES

Pierre Mayeur
Dominique Lamiot
Véronique Hassel

EMPLOYERS’ REPRESENTATIVES

Ministère de la Défense
MINEFE
La Poste
Association des Maires de France
Assemblée des Départements de France
Association des Régions de France
Fédération Hospitalière de France 2
Fédération Hospitalière de France 1

REPRESENTATIVES OF ACTIVE CONTRIBUTORS

CGT
CFDT
FO
FSU
UNSA
CFE-CGC
CFTC
SOLIDAIRES

ATTENDANCE AT BOARD MEETINGS IN 2016

Source – ERAFP

1 The details and application procedures for these decisions are detailed on page 22
2 The details and application procedures for these decisions are detailed on page 26
3 The updated parameters for the discount rate formula are detailed on page 24
4 Decree 2004-569 of 18 June 2004 (Art. 32) stipulates that such an agreement must be entered into for at least five years in order to “determine the multi-year objectives of the administrative management” provided by Caisse des Dépôts.
5 The main parameters of this update are presented on page 34
OPERATION OF THE RAFP IN 2016

WORK OF THE CSR
In 2016, the committee steadily and efficiently performed the work needed to take into account in the discount rate a forecast return on equities, at a conservative level that nonetheless remained above zero. Moreover, as the new mandate got underway the directors made full use of the investment policy monitoring tools, studying in particular the hedging procedures for currency exposure. At the same time, as the committee’s principal role is to ensure that the balance between commitments and financial assets is maintained, we reviewed presentations of updated demographic studies. Lastly, we initiated discussions on adapting our investments’ regulatory framework to the medium-term outlook, given that yields on bonds remain too low for them to make up the core of our new investments.

The committee also welcomed management’s methodological changes concerning simulations and impact studies (introduction of stochastic scenarios). These developments are an invaluable, informative resource for discussion and preparing decisions.

In a context of bond market crisis, the CSA focused particularly on considering ways to broaden its management scope, and remains clear that definition of the real estate strategy and the methodology for monitoring and ensuring compliance with the investment policy are an integral part of this process.

WORK OF THE CSA
The end of the board’s vacancy was notably an opportunity for the committee to study and propose for adoption by the board the 2014 financial statements and internal control report, followed by those of 2015. With the help of a working group, at the end of the first half we completed the preparatory work for the 2016-2020 objectives and management agreement with Caisse des Dépôts. We also monitored the various management processes and methods of disseminating information, ensuring that they are controlled over time and, specifically on that basis, we proposed the adoption of budgets in line with ERAFP's missions.

WORK OF THE CSAP
In 2016, the committee steadily and efficiently performed the work needed to take into account in the discount rate a forecast return on equities, at a conservative level that nonetheless remained above zero. Moreover, as the new mandate got underway the directors made full use of the investment policy monitoring tools, studying in particular the hedging procedures for currency exposure. At the same time, as the committee’s principal role is to ensure that the balance between commitments and financial assets is maintained, we reviewed presentations of updated demographic studies. Lastly, we initiated discussions on adapting our investments’ regulatory framework to the medium-term outlook, given that yields on bonds remain too low for them to make up the core of our new investments.

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WORK OF THE COMMUNICATIONS COMMITTEE
The communications committee first looked at the state of play of communication activities at the time of its appointment, contributing in particular to reviews of the Scheme’s record as regards press coverage, participation in public sector trade shows and the launch of its website. It was kept informed of the progress of preparatory work for the 2016-2020 objectives and management agreement, which made it possible to reaffirm the consistency between the operational approach implemented by Caisse des Dépôts for informing employers and beneficiaries and ERAFP’s institutional approach, and led to a joint action plan. Although much remains to be done to plug the information gap about the Scheme, this plan, which we will pursue in 2017, is a significant step forward.

WORK OF THE CSPP
We devoted the first part of the year to the business of updating the SRI Charter, in which the board’s members were actively involved. Accordingly, we opened certain meetings to contributors from outside the committee, enabling everyone to participate in the drafting of this core additional pension scheme document. I think we can be satisfied with the result, which involved introducing a number of new procedures, such as in-depth monitoring of corporate breaches of international standards. This monitoring, which we will formally implement over time, complements the engagement initiatives that allow us to debate with and influence issuers. Based on the very useful feedback from the 2016 general meeting season, at the end of the year we updated our voting policy, which remains one of the investment community’s most stringent.

situations of lump sums converting into annuities, which occurs if the total points of a beneficiary who received a lump sum on initial liquidation rise above 5,125. In this case, the lump sum initially received is not recalled, but payment of the annuity is withheld until the receivable represented by the incorrectly paid lump sum has been recovered. The committee’s objective was to resolve the difficulties arising from such situations, when a beneficiary’s death results in recovering the receivable from his or her heirs.

Philippe Laurent, chair of the investment policy monitoring committee

Eric Poglio, chair of the asset and liability management committee (CSAP)

Francis Sahal, chair of the audit committee (CSA)

Steve Mazens, chair of the collections committee (CSR)

Anne Meunier, chair of the communications committee

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Impact of the PPCR protocol on the calculation of contributions to the Scheme:
The «Job paths, careers and remuneration» (PPCR) protocol, arising from the 2016 Finance Act 2015-1785 of 29 December 2015, has a limited impact on the Scheme’s basis.

Decree 2016-588 of 11 May 2016, applicable to all three public service segments, notably implements a so-called bonus and points transfer measure featuring an increase in the number of basic points for each level of the three statutory categories, at the same time as a flat-rate reduction of the «indemnitory» component of public servants’ remuneration.

While overall the transfer of a maximum of nine points reduces the Scheme’s contributions basis, the resulting salary increase effectively raises the ceiling by 20%. Thus, while public servants whose indemnitory remuneration is below the ceiling will, all other things being equal, see their contribution slightly decrease, for most of them, for which it exceeds 20%, the contribution to the Scheme will increase.

Parameters defined by the board of directors:
€1.1967 purchase value of a point in 2016
€0.04474 service value of a point in 2016

Transferring Scheme pension rights to the European Union pension scheme:
In the event of a request by a contributing beneficiary of the Scheme to transfer his or her rights to the European Union scheme, provided that this request complies with the statutory terms and conditions in force on that date, the amount to transfer is equal to:

\[
\text{[Number of points acquired under the Scheme]} \times \text{[Current service value of a point]} \times \text{[Lump sum conversion factor specified in the Scheme’s actuarial lump sum conversion schedule]} \times \text{[Premium specified in the Scheme’s actuarial premium factor schedule]}
\]

For more information on PPCR impact.

### 2016, ADDITIONAL PENSIONS IN BRIEF

- A mandatory, points-based scheme created for public servants working in French central government (civilians and military), local and regional authorities and the public hospitals sector, and members of the judiciary.
- An additional retirement benefit that takes into account bonuses and ancillary remuneration.
- 4.5 millions contributors in 2016.
- A contribution basis made up of all types of remuneration not included in the calculation of the basic pension – bonuses, overtime hours, allowances and in-kind benefits.
- An overall contribution rate set at 10% of the basis amount, split evenly between the employer (5%) and the public servant (5%).
- Contributions that are credited to an individual retirement account, which can be viewed online at www.rafp.fr.

### THE RAFP BENEFIT RIGHTS VESTING SYSTEM

**Legal and regulatory developments in 2016**

**Impacts of the pension reform law of 9 November 2010:** Upon reaching the legal retirement age and provided the beneficiary qualifies for pension benefits under the basic pension scheme, he or she may apply for the additional pension benefit. The age at which the additional pension benefit becomes available was previously set at 60 but has been gradually raised to 62, in line with the change in the legal retirement age.

#### MINIMUM LEGAL RETIREMENT AGE DEPENDENT ON THE YEAR OF BIRTH

<table>
<thead>
<tr>
<th>Date (or year) of birth</th>
<th>Minimum legal retirement age</th>
<th>Retirement possible as from</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between 1 July and 31 December 1951</td>
<td>60 years and 4 months</td>
<td>1 November 2011</td>
</tr>
<tr>
<td>1952</td>
<td>60 years and 9 months</td>
<td>1 October 2012</td>
</tr>
<tr>
<td>1953</td>
<td>61 years and 2 months</td>
<td>1 March 2014</td>
</tr>
<tr>
<td>1954</td>
<td>61 years and 7 months</td>
<td>1 August 2015</td>
</tr>
<tr>
<td>1955</td>
<td>62 years</td>
<td>1 January 2017</td>
</tr>
</tbody>
</table>

Source: [http://vosdroits.service-public.fr](http://vosdroits.service-public.fr)
Approximately 44,000 employers paid contributions to Caisse des Dépôts in respect of the Scheme in 2016.

- €1.83 billion in contributions collected in respect of the 2016 financial year.
- 4.5 million contributing public servants.
- 112,000 pension liquidations and 73,000 individual RAFP account revisions in 2016.
- €283 million paid to beneficiaries in benefits.
- Nearly 70,000 annuities in payment.

It should be noted that 97.4% of employers had paid in all the requisite contributions in respect of 2015 by the end of 2016.

Stable at less than 5% for a number of years, in 2016 the payment incident rate increased. The average rate for the year was 4.6%, compared with 4.4% in 2015. These payment incidents are subject to corrective actions: 97.8% of incidents arising in 2016 were corrected during the year.

The Scheme’s administrative management has been entrusted to Caisse des Dépôts et Consignations pursuant to article 32 of the decree of 18 June 2004 on additional pensions for public servants. Caisse des Dépôts is responsible for the following tasks under the authority and supervision of the board of directors: collection of contributions, maintenance of beneficiaries’ individual retirement accounts, liquidation of rights, payment of benefits, the Scheme’s accounting and operational communications. It accordingly acts as the Scheme’s single interface for employers, retired beneficiaries and active contributors with regard to their right to information.

The Scheme collected around €1.83 billion of contributions in 2016. Employers with at least ten employees pay contributions on a monthly, aggregate basis. Those with fewer than ten employees pay contributions annually.

In the event of a late payment, a penalty is added to the contribution. In 2016, 1,084 employers were obliged to pay penalties in respect of 2015.

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97.4% employers’ accounts
4.6% payment incident rate, of which 97.8% corrected
99.3% of individual contributors’ accounts updated as at 31 December 2016

112,000 pension liquidations in 2016
73,000 benefits revisions
around €283 million in total benefits paid out to beneficiaries in 2016, of which €22 million as annuities and €261 million as lump sums

Average lump sum of €1,860 and average annuity of €315

... and 4.5 million contributing public servants in 2016

Each year, employers send Caisse des Dépôts a statement summarising for each of their public servants the contributions paid in during the previous year.

The deadline for reporting contributions collected during 2015 was 31 March 2016. Rights are added to the contributors’ individual accounts provided the amounts reported match the contributions received. ERAFP and Caisse des Dépôts, working closely with the supervisory authority, have implemented actions to raise awareness among employers of their regulatory obligations and the rights of their employees.

Caisse des Dépôts contacts employers, by telephone or in writing, whenever a discrepancy between the reported amount and the amount received is observed. This has enabled us to maintain a very high update rate for contributors’ accounts since 2009 (over 98% on average), which is indicative of an increased awareness and understanding of the Scheme and is partly due to Caisse des Dépôts’ actions to raise awareness among employers.

The number of updated individual retirement accounts was stable in 2016, as was the update rate, which reached 99.3% at 31 December.

Nearly 112,000 pension liquidations and 73,000 benefits revisions in 2016

A total of 112,000 pensions were liquidated in 2016 and 73,000 benefits were revised.

In all, €283 million of benefits were paid out to beneficiaries in the year. This amount includes the revisionary benefits paid out to deceased beneficiaries’ spouses and children under 21.

PAYOUTS INCREASING

In 2016, payouts increased by 5.6%. The number of lump sum payments decreased (140,085 in 2016, compared with 145,862 in 2015), while the average lump sum payment was €1,860, up 7% compared with 2015 (€1,735)13.

ANNUITY PAYMENTS TAKE OFF

70,272 annuities were paid in 2016. The increased number in the number of annuities in payment compared with lump sum payments is attributable to the gradual growth of the Scheme since its inception in 2005.

Every year, therefore, there are more and more beneficiaries who have accrued throughout their careers a total number of points in excess of the minimum 5,125 necessary to receive annuity payments. The average annuity in 2016 was €31514, 2% higher than in 2015 (€310). By definition, annuity recipients have been able to contribute to the Scheme for a maximum of only 11 years since contributions did not start until 2005. The average annuity shown above reflects this limited contributions period.

Although total annuity payments in 2016 were only around 8.5% of the total lump sum payments (€22.1 million vs. €261 million, respectively), they are growing rapidly and increased by around half the amount of €14.8 million paid out under annuities in 2015.

2016 MANAGEMENT COSTS

CONTROLLED MANAGEMENT COSTS

The operating budget for the Scheme and its management entity is financed directly from amounts deducted from contributions. The budget is voted in annually by the board of directors.

In 2016, management costs totalled €30 million, corresponding to 0.14% of the Scheme’s net assets and 1.6% of contributions collected in 2016.

The implementation of ERAFP’s asset diversification policy implies making better use of its resources. This is a prerequisite for increasing the potential yield on the Scheme’s investments and reducing its allocation risk, which is also a way of containing future costs.

CHANGES IN SCHEME MANAGEMENT COSTS SINCE 2005

A Scheme managed by a public sector management entity operating under the oversight of the French State
Administrative management provided by Caisse des Dépôts et Consignations (CDC), under the authority and control of the board of directors
Management of financial assets partially delegated to investment management companies
Direct management by ERAFP of government bonds and government-backed securities
Management costs in 2016: €30 million

Source – ERAFP

13 Although the increase is material, these amounts do not represent the total benefits paid, which generally comprise two lump sum payments, on liquidation and on revision
14 Average total monthly payments throughout the year
PUBLIC SECTOR EMPLOYERS: MORE DETAILED INFORMATION

In its early years, the Scheme essentially aided public sector employers in the practical aspects of fulfilling their responsibilities. Now, it aims to enhance their awareness of the Scheme’s specific capitalisation and long-term socially responsible investment features to enable them to pass on such information to their employees.

> Public servants emphasise the employer’s role in passing on information about the Scheme.

The main channels for passing on information are departmental circulars or pay slips15.

In 2016, ERAFP participated in both the Salon des Maires (mayors’ convention) and the Salon Santé Autonomie (health and autonomy fair) in order to meet hospital employers, notably to reduce the information gap that this sector faces in relation to the local and regional authority sector.

> Employers in the local and regional authorities segment are more likely to say they are “well informed” than other employers16.

In operational terms, Caisse des Dépôts’ call centre in Angers handled around 10,500 telephone calls from employers in 2016 (92% of calls received). Extending the gradual decline in call volumes seen in most recent years, the 2016 decrease (down from 12,600, or -17%) was nevertheless less marked than that of 2015, which is partly attributable to employers’ increasing awareness of the Scheme’s operating rules. Caisse des Dépôts also held a number of training and information sessions for employers over the year, as well as handling around 1,200 emails.

Note that more than 210,810 account consultations were recorded on the e-services website set up for employers.

BETTER UNDERSTANDING THE NEEDS OF ACTIVE CONTRIBUTORS IS A SCHEME PRIORITY

As reiterated by the communications committee members, the lack of knowledge and awareness of the Scheme persisted in 2016. ERAFP and the Administrative Manager are striving to remedy this by being attentive to the needs expressed by beneficiaries.

> The Scheme’s website is an important source of complementary information to that provided by the employer17.

The RAFP website currently allows active beneficiaries to obtain detailed information about the Scheme and to view their individual retirement accounts using applications developed by Caisse des Dépôts. The Scheme is now able to interact with its target sectors entirely electronically, thanks to the creation of contact forms and information letter subscription services, one example being a letter specifically for active beneficiaries, introduced alongside that already provided for employers.
The quarterly letter subscription forms are available in the newsletters section of the Scheme’s website: https://www.rafp.fr/newsletter/formulaire-d-abonnement.

Lastly, after numerous requests from the Scheme’s beneficiaries, a payment simulator has been included on the site’s home page, and practical information files are now available.

Informing retired beneficiaries

Nearly 80,300 telephone calls from retired public servants were handled in 2016 (92% of calls received). Meanwhile, around 21,000 items of correspondence (letters and e-mails) were processed over the year, up 5% on the 20,100 items processed in 2015. This coincided with a decrease in the number of telephone calls.

The number of SARA online service users reached 653,000 in 2016. This portal is reached 653,000 in 2016. This portal is available in the “newsletter” section of the Scheme’s website: beneficiaries ask for an appointment system operated via the Scheme’s website: beneficiaries ask for an appointment and are called back on the day and at the time requested.

The Administrative Manager also continues to measure user satisfaction with its information services in order to improve the quality of its responses and case monitoring.

Informing active contributors

917,733 documents relating to RAFP (individual statements and general indicative estimates for pensions) were sent out to active contributors by the various schemes in compliance with contributors’ right to information. It should be noted that in 2011 RAFP took over responsibility for informing active public servants if the primary scheme is unable to produce the required documents. As a result, 64,340 of the 917,733 documents were sent out directly by RAFP.

Furthermore, in 2016 Caisse des Dépôts handled nearly 30,500 telephone calls from active contributors under their right to information (92% of calls received), as well as around 2,700 letters and e-mails.

Institutional players: Increasingly fruitful communications

Contact with the public authorities

In connection with its engagement within the IIGCC, ERAFP takes part in dialogue between investors and the public authorities to promote the transition to a carbon-free economy. The conditions of this dialogue are detailed on page 70 of the third part of this report.

Contact with the public

Following on from the COP 21, in 2016 ERAFP continued to take part in the related public debate, as a long-term investor. The initiatives that it announced within this framework are detailed on page 36 of the third part of this report.

Press

ERAFP’s investments and strategy prompt most of its citations in the press. Similarly, its disclosures about the award of mandates and its socially responsible engagement continue to be widely reported. ERAFP’s image is growing, particularly in the sphere of socially responsible investment, an area in which the institution is seen as a major player in France.

In 2016, the Scheme or ERAFP were referred to in 2,844 press or online articles, more than twice the amount in 2015 (1,075). The Scheme’s media coverage has improved consistently over the last five years.

More specifically, the 18 press releases issued by ERAFP appeared extensivelv in the written press, particularly in the economic and financial sections, as well as on-line and on social networks such as Twitter.

The Chief Executive Officer and his staff were also interviewed on numerous occasions by specialist French and English language publications, and took part in around 150 conferences and seminars in France and abroad.

Twitter

2016 was ERAFP’s third year as an active Twitter user, both as publisher (827 tweets) and relayer (311 retweets) of information in its areas of interest. It also saw increased interest in its profile, recording some 14,025 visits (compared with 5,480 in 2015) and 446 new followers, making a total of 767 at year-end. Indeed, with 1,233 tweets referring to ERAFP (vs 267 in 2015), Twitter was the most active online medium for the Scheme in 2016.

The scheme: a central communication tool for the scheme

In 2016, traffic remained stable, with around 60,000 visits per month. The payment simulator was the most visited page, and the practical data sheets the most downloaded documents, in what was their launch year.

80,300 telephone calls from retired public servants handled in 2016

653,000 number of people registered for SARA online services in 2016
02. THE SCHEME’S LONG-TERM EQUILIBRIUM

**ERAfp: Key Figures***

- Assets of around €21.7 billion (book value)
- Estimated financial coverage ratio of around 107% (estimated figure, unaudited)
- Technical reserves of around €20.2 billion (estimated figure, unaudited)
- Non-technical reserves of €1.5 billion (estimated figure, unaudited)
- Discount rate set at 0.8% **

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* Valuation at end-2016
** Discount rate net of management fees, set using a method that takes into account the re-investment risk
MANAGEMENT OF TECHNICAL PARAMETERS IN 2016

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 3.738% in 2016. These measures reflect the impact of a most probably 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 2016 reserves.

GUIDELINES FOR MANAGING 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 obligation to cover the Scheme’s commitments at all times implies careful monitoring of the financial coverage ratio. At the end of 2016, this ratio stood at approximately 107% (estimated figure, unaudited).

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 2016 calls for maintaining 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 assets19, 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 2016, the excess economic coverage requirement was measured at 16% of commitments.

The Scheme’s economic coverage ratio, after revaluation, was approximately 118% (estimated figure) at 31 December 2016.

DETERMINATION OF THE PURCHASE AND SERVICE VALUES OF POINTS

The board of directors sets these parameters each year. Since adoption of the management 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 management guidelines. It then resolved on 16 February 2016 to increase the service value of a point by the inflation rate observed in 2015, which was 0.2% for benefits paid as from April 2016.

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.

19 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.
As a result, the Scheme’s technical return came to:
- 3.899% in 2015
- 3.738% in 2016

The higher rate of increase in the purchase value of new Scheme points compared to their service value affects all contributors, but does not impact pensions already in payment.

### Discount Rate Applied to Reserves

The Scheme’s discount rate applied to reserves is set at a very conservative level, particularly compared with the practices of other European pension funds. It takes account of 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 in 2016, 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 2016 was set at 0.8%, down by 20 basis points compared with 2015, due in particular to ongoing low levels of bond yields.

The regulatory minimum level of management fees is 0.25%. This minimum level is used in the discount rate formula, in order to reflect the economic realities faced by the Scheme. The discount rate gross of fees consequently came to 1.05%.

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.

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.

### Audited 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. These financial statements were approved at the earliest opportunity, which was at the newly appointed board’s meeting on 16 February 2016.

The 2015 financial statements were approved by the board of directors at its meeting of 28 June 2016, in accordance with the established timetable. On both occasions, after auditing the valuation processes for reserves, the independent auditors certified the fairness and accuracy of the financial statements without any qualifications.

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### Technical Interest Rate, or “Premium Rate”

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### Yearly Purchase and Service Values

<table>
<thead>
<tr>
<th>Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase value (£)</td>
<td>1.00</td>
<td>1.017</td>
<td>1.03022</td>
<td>1.0537</td>
<td>1.08572</td>
<td>1.05095</td>
<td>1.05620</td>
</tr>
<tr>
<td>Change</td>
<td>-</td>
<td>+1.70%</td>
<td>+1.30%</td>
<td>+0.50%</td>
<td>+1%</td>
<td>+0.50%</td>
<td>+0.50%</td>
</tr>
<tr>
<td>Service value (£)</td>
<td>0.04</td>
<td>0.0408</td>
<td>0.0453</td>
<td>0.042</td>
<td>0.04261</td>
<td>0.04283</td>
<td>0.04304</td>
</tr>
<tr>
<td>Change</td>
<td>-</td>
<td>+2.00%</td>
<td>+1.80%</td>
<td>+1.60%</td>
<td>+1%</td>
<td>+0.50%</td>
<td>+0.50%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase value (£)</td>
<td>1.07420</td>
<td>1.0850</td>
<td>1.09583</td>
<td>1.1452</td>
<td>1.1967</td>
<td>1.2003</td>
</tr>
<tr>
<td>Change</td>
<td>+1.70%</td>
<td>+1%</td>
<td>+1%</td>
<td>+4.5%</td>
<td>+4.5%</td>
<td>+0.3%</td>
</tr>
<tr>
<td>Service value (£)</td>
<td>0.04378</td>
<td>0.04421</td>
<td>0.04465</td>
<td>0.04465</td>
<td>0.04474</td>
<td>0.04487</td>
</tr>
<tr>
<td>Change</td>
<td>+1.70%</td>
<td>+1%</td>
<td>+1%</td>
<td>0%</td>
<td>+0.2%</td>
<td>+0.3%</td>
</tr>
</tbody>
</table>
RENEWED ASSET ALLOCATION IN THE SERVICE OF THE ECONOMY

ERAFP’s investment policy aims to combine financial performance, risk management and socially responsible commitment within the strategic asset allocation approved by the board of directors. In 2016, ERAFP continued to acquire the tools and resources needed to invest in new asset classes while simultaneously extending 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);
- 3% of total assets may be invested directly.

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

DEVELOPING THE FRENCH ECONOMY AND FINANCING SMEs

The public financial sector can serve as a relay when access to credit by economic players becomes tighter as a result of an economic slowdown23. ERAFP is able to perform this countercyclical 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 2016, ERAFP provided €8.8 billion of financing to the French economy, in the broad sense, representing 45% of its total assets at amortised cost.

INVESTMENTS IN FRANCE AND GLOBALLY BY ASSET CLASS AT 31 DECEMBER 2016

<table>
<thead>
<tr>
<th>Category</th>
<th>France</th>
<th>States and international institutions</th>
<th>Companies</th>
<th>Real estate</th>
<th>Total net assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local and regional authorities</td>
<td>€187 million (78%)</td>
<td>€4,019 million (44%)</td>
<td>€4,404 million (40%)</td>
<td>€1,076 million (66%)</td>
<td>€5,685 million (45%)</td>
</tr>
</tbody>
</table>

European SMEs have seen their access to financing deteriorate in the years following the major credit contraction of 2008-200924. 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 economy24. In 2016, there was a continued lack of private equity financing in France25. ERAFP contributed €580 million to the financing of European SMEs in 2016, a significantly higher amount than in 2015, when it was around €360 million. 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 2016, Amiral Gestion, as well as through the multi-asset mandate held by Amundi;
- it contributes to the financing of unlisted SMEs and ETIs through loan securitisation funds in which it invests directly or through the management mandates held by Amundi and Natixis AM;
- it makes private equity investments in unlisted SMEs directly through open-end funds or the multi-asset mandate held by Amundi.

The SSE, an opportunity for a patient investor

In 2016, ERAFP invested €5 million in the NoS5 social and solidarity economy fund, the purpose of which is to help socially innovative businesses in the fields of health, the circular and collaborative economy, and the energy and environmental transition. Launched with a call for public interest by Caisse des Dépôts, for which Mandarine Gestion and Comptoir de l’Innovation were selected in June, it aims to raise €100 million, which will be invested over a 15-year period, for an expected return of around 2%.

Particular emphasis is placed on measuring social and environmental impact using a method adapted to the monitored companies based on indicators such as the number of jobs created, the amount of land organically farmed, beneficiaries with no academic qualifications or the costs avoided in terms of health.

Until now, methods of correlating investment choices with concrete socio-economic impacts have been less than satisfactory. Impact measurements that are sufficiently robust and reliable are therefore extremely useful, even if it will take time for them to become widely applied.

22 ‘L’État et le financement de l’économie’ (The State and the financing of the economy), thematic report by the Cour des Comptes (Court of Auditors), July 2012.
23 OECD, Le financement des PME et des entrepreneurs (The financing of SMEs and entrepreneurs), key indicators, 2013
24 Source: The French Council of Economic Analysis, Une stratégie PME pour la France (One strategy for France), 2006 report
25 Source: Cour des Comptes (Court of Auditors), L’Etat actionnaire (The shareholder State), thematic report, January 2007.
THE SCHEME’S LONG-TERM EQUILIBRIUM

Guidelines

Following the resumption of its work after the vacancy period in 2015, the board of directors voted at its meeting on 16 February 2016 to continue diversifying the Scheme’s assets, 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 into the asset segment comprising unlisted, private equity and infrastructure investments. Around €1.83 billion was received in contributions in 2016. 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 2016, the internal rate of return26 on the overall portfolio was 5.0%, reflecting the ERAFP portfolio’s stock market performance. This rate was up from 4.0% in 2015. The yield to maturity, meanwhile, came to 2.2% (3.8% in 2015).

Longer term return: performance calculated over three and five years

Although annual performance is a useful indicator, it is reasonable to assume that the closer the performance calculation period is to the length of commitments, the more relevant will be the information produced from that calculation. If we consider a longer period than the past year, we can see that the portfolio’s annualised internal rate of return came to 7.0% in market performance terms over three years, and to 8.5% over five years. Meanwhile, the annualised yield to maturity came to 3.2% over the last three years and 3.3% over the last five years.

At the beginning of 2016, the euro-denominated government and corporate bond portfolio represented 62% of the Scheme’s assets at amortised cost. ERAFP invests for the long term and aims to hold its bond investments until maturity. Most investments are 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. As a result, the stock market performance of euro-denominated government and corporate bonds is a less useful indicator than their yield to maturity. For an average duration of 71 years, the average yield to maturity on the euro-denominated government and corporate bond portfolio at the end of 2016 was 3.66%27, down slightly compared to the previous year (3.72%). For the rest of the portfolio, the stock market performance gives an indication of the returns generated during the year, although it is preferable to assess this over a longer period.

The equity portfolio performed well, at 6.2%, albeit less than in 2015 (11.8%), when the market environment had been particularly favourable. The performance of dollar-denominated corporate bonds was also positive (4.0%), after a contraction in 2015 due to pressure on US interest rates. The performance of convertible bonds, although positive (0.7%), fell compared to 2015, when they had benefited from the favourable environment (3.9%). The multi-asset segment’s performance was up (at 4.2%) compared with 2015, when it came in at 0.5%. This reflected the sound performance of variable-income asset classes, particularly in the last quarter. The solid performance of unlisted assets (3.7%) came on top of a slightly negative performance in 2015 (-0.6%), when the first investments in this segment were made.
Apart from for portfolios that were started up later, i.e. dollar-denominated corporate bonds and unlisted equities, the internal rate of return on the portfolio’s various variable-income asset classes was calculated over three years, giving a longer-term view of stock market performance.

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 means that financial risk can be spread across a number of 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 2016, ERAFP launched two financial tenders:
- On 2 February, with a view to awarding private equity and infrastructure mandates;
- On 26 May, with a view to renewing all the European equity mandates.

At the end of 2016:
- 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.

### Internal Rate of Return Over Three Years by Market Valuation at 31 December 2016

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Annualised Three-Year IRR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equities</td>
<td>8.3%</td>
</tr>
<tr>
<td>Convertible bonds</td>
<td>2.4%</td>
</tr>
<tr>
<td>Multi-asset</td>
<td>4.1%</td>
</tr>
<tr>
<td>Real estate</td>
<td>2.8%</td>
</tr>
</tbody>
</table>

ERAFP launched 2 financial tenders in 2016.

**SRI Policy**
One of the provisions arising from international negotiations to limit global warming is particularly important for French institutional investors: article 173 of the law on the energy transition for green growth. This law and its associated implementing decree require them, as from this year, to publish information on their environmental and social approach, specifically as this relates to reducing global warming.

Having trialled the publication of this information in the recommended format in its 2015 public report, this year ERAFP wishes to extend this approach, specifically by publishing new indicators for monitoring climate risks and issues. The following points make up its agenda:

- presentation of the general environmental, social and governance (ESG) approach;
- ESG information provided to contributors;
- ESG analysis method;
- impact of the ESG approach on implementation of the investment policy, asset class by asset class;
- shareholder engagement strategy and related initiatives.
GENERAL ESG APPROACH

The SRI Charter
ERAFP’s board of directors resolved on 10 November 2005 to adopt an investment policy that takes into account, resolutely and permanently, the pursuit of the public interest. Adopted in March 2006, the Charter specifies the orientations, tools and resources needed to apply this socially responsible investment policy.

THE SRI CHARTER WAS UPDATED IN 2016

There were three major changes:

First change: ERAFP’s new SRI Charter places greater emphasis on environmental and climate issues

Extract from the SRI Charter: ‘Measurement of the effective impact (over time) of applying ESG criteria in the context of best in class, shareholder engagement and steady reduction of the portfolio’s carbon footprint is a growing priority for ERAFP’s stakeholders. From now on it will be taken into account, regularly monitored and disclosed in ERAFP’s annual report and could lead to adjustments in the implementation of the principles of this SRI Charter.’

Second change: Measuring the impact of investments

Extract from the SRI Charter: ‘ERAFP seeks to measure the impact of its SRI investment policy in all asset classes. To this end, impact indicators have been set by asset class and are designed, to the extent possible and according to techniques available in this area, to measure the environmental, social and governance impacts arising from ERAFP’s investments.’

Third change: Monitoring breaches

Another change introduced in the updated Charter is the in-depth monitoring that ERAFP will now carry out of corporate breaches of international standards. This may lead to exclusions, as was already the case for countries’ not complying with certain standards.

Extract from the SRI Charter: ‘If shareholder engagement measures are not enough to ensure that the company responds adequately to the issues raised or is in the process of responding to it, other actions will be considered:

- more in-depth dialogue through the delegated manager in the context of preparing its vote at the general meeting of shareholders;
- any other means that protect ERAFP’s interests;
- lastly, sale of the securities by the delegated manager.’

Implementation of these changes in the SRI system as a whole will be completed in 2017. The ratings presented in this report correspond to the previous criteria in force during the year.

THE SCHEME’S SRI APPROACH IS ORIGINAL IN A NUMBER OF RESPECTS:

- the board of directors has defined its own SRI guidelines:
  - While the board of directors and management naturally enlisted the services of outside providers such as consultants and rating agencies, it was the board itself that defined guidelines tailored to the directors’ requirements and values, and placed them under their permanent supervision;
  - the policy’s content is “100% SRI”, in other words the SRI Charter applies to all of the Scheme’s investments and takes into account the specific features of each asset class.

THE SCHEME’S SRI APPROACH IS OVERALL:

- Not only does it concern all of the Scheme’s investments but it also applies to all the investment phases, from the first stage of asset allocation to the post-investment stage of monitoring the companies whose shares are included in the portfolio;
- It is based on a wide, cross-cutting selection of stocks rather than a large number of single-themed sub-portfolios.

For an investor of ERAFP’s size that wishes to adopt a uniform approach for all of the asset classes in which it invests, the best in class approach seems the most appropriate, as it focuses on the links between the various considerations and the various issuers rather than tackling each issue in isolation. Conversely, it might seem inconsistent to exclude certain business sectors completely given that the portfolio includes issuers from other sectors or other asset classes that have direct links to the excluded sectors.

L’application du principe de best in class
L’application du principe de best in class resulte in the inclusion in the guidelines of quantitative rules that make it possible to determine the eligible investment universe. These rules are defined for each asset class with the aim of encouraging each one to improve. Generally speaking this means:
- excluding no business sector, but promoting the issuers with the best ESG practices within each sector and, more generally, within groups of comparable issuers;
- showcasing progress made;
- monitoring and supporting issuers that have adopted a continuous improvement approach.

AN SRI CHARTER BROKEN DOWN INTO EVALUATION CRITERIA FOR THE VARIOUS ASSET CLASSES
ESG INFORMATION PROVIDED TO CONTRIBUTORS

Since ERAFP’s inception, its socially responsible investment policy has been developed through pro-active initiatives of its board of directors, on which the Scheme’s active contributors are represented by union organisations, alongside contributing employers from the public sector.

Reporting to contributors on the implementation of environmental, social and governance criteria in issuer selection is therefore one of the very principles underlying the SRI policy.

In recent years, public expectations have increased as regards investors’ role in the transition towards a carbon-free economy. Based on this observation, ERAFP has decided to raise the profile of its action and, through the public domain, communicate directly with its 4.5 million active contributors. These contributors are also citizens concerned about such issues as the climate, and ERAFP intends, through this channel in particular, to draw their attention to the need to take into account the social and environmental consequences of the investments made for them and from which they benefit.

Every year, ERAFP publishes its public report, in which it describes its socially responsible investment approach and the integration of environmental, social and governance criteria in the various stages of issuer selection. In 2016, in addition to the section dedicated to SRI on its institutional website, which is regularly updated based on current events, ERAFP launched ‘le Regard de l’ERAFP’. This site is intended to relay information in blog format about responsible investment and the energy transition.

It promotes and offers to explain in detail its SRI policy when it meets public sector employers, an example of this being though trade shows.

This report, along with the initiatives launched to align the investment portfolio with international global warming limits, objectives are also initial tools for exchanging with the organisations that most actively lobby institutional investors to factor climate considerations into their decisions.

With this in mind, ERAFP took part in the Climate Chance summit in Nantes, meeting local and regional authorities as well as local transition stakeholders. For this event, it produced a fact sheet on the alignment of the energy mix of ERAFP’s portfolio with the 2°C scenario, and has distributed this regularly at events in which it has taken part since then.

The Scheme’s 2017 greetings card was also designed at a Climate Chance workshop. It uses fact-filled infographics to present ERAFP’s socially responsible investment approach.

ERAFP has a very long-term responsibility towards its contributors and beneficiaries. Global warming represents - among other things - risks for issuers and the investors that finance them. Driven by its fiduciary duty towards its contributors, ERAFP actively seeks to raise the awareness of the various stakeholders about the importance of changing economic structures with a view to decarbonization.

ESG ANALYSIS METHOD

ADHERENCE TO CODES OR INITIATIVES

The financial sector can only adopt a longer-term vision in its practices and systematically take into consideration environmental, social and governance factors if responsible investors work together to influence the sector as a whole.

With this in mind, in 2006 ERAFP became a signatory of the United Nations’ Principles for Responsible Investment (PRI), and has duly undertaken to apply each of these principles.

Each year, in accordance with the sixth principle, ERAFP completes a questionnaire assessing its implementation of the Principles for Responsible Investment which is sent to the PRI’s secretariat and published.

This report provides - non-exhaustively - the information that illustrates the effective application of these principles.

As well as the PRI, in 2012 ERAFP joined two international initiatives: the International Investors Group on Climate Change (IIGCC) and the Extractive Industries Transparency Initiative (EITI), which enable it to lobby issuers and regulatory bodies to promote more responsible practices as regards two key themes for ERAFP:

- Reducing climate change and financial transparency.

Involvement in this type of initiative is borne out of ERAFP’s shareholder engagement approach, which is described in more detail on page 52.
The board of directors:
- sets the general orientation of the SRI policy;
- and ensures that it is effectively applied. To enable it to be truly responsive, the board is kept permanently and fully informed, notably through regular meetings of its investment policy monitoring committee (CSPP).

**ERAFP’s management**

ERAFP’s management plays a number of roles:
- directly implements the SRI guidelines in the area of internal bond management, which, under the Scheme's currently applicable regulations, concerns sovereign and equivalent bonds;
- ensures that the external asset management companies apply the SRI policy, whether in terms of using the best in class principle for securities selection or applying ERAFP’s voting policy at general shareholder meetings;
- ensures that contracts entered into with the SRI rating agencies are correctly performed;
- reports to the board of directors and the CSPP on implementation of the SRI policy, and assists directors with the preparation of their business.

**Rating agencies**

The rating agency – currently Vigeo – is responsible for assessing the asset portfolio quarterly and providing detailed half-yearly reports on each portfolio segment for submission to ERAFP.

**Asset management companies**

The management of asset classes other than sovereign and equivalent bonds is deleagated almost entirely to asset management companies. At end-2016, ERAFP had 24 dedicated mandates under management with management companies, which were charged with investing on its behalf in listed company shares, corporate bonds, convertible bonds and real estate. Under these mandates, each management company must comply with ERAFP’s SRI guidelines (PRI - Principle 4). ERAFP holds six-monthly investment committee meetings with each of its mandatees to discuss matters such as the mandates’ SRI aspects.

**GENERAL DESCRIPTION OF ESG RISKS**

Like many pension funds and insurers, ERAFP makes a commitment to its contributors and beneficiaries lasting decades. Unlike some others, however, ERAFP enjoys a relatively unusual advantage: as a young, mandatory scheme it will benefit from significant net financial inflows, which can also be quite accurately forecast, over at least the next 30 years.
SELECTION OF THE MAIN CRITERIA

ERAFP’s SRI Charter, which was drawn up as a result of its board of directors’ engagement, is based on French public service values. It is applied to all of the Scheme’s investments and broken down into more than 40 evaluation criteria adapted to the specific features of each category regulations.

Lastly, in analysing issues on a whole-portfolio basis, a universal investor such as ERAFP can only insist on the necessity of adopting a cross-cutting approach. For example, the resources that states need of issuer. While each issuer’s individual context systematically dictates the analysis of these criteria, the Scheme considers some to be key and therefore attributes more weight to them, regardless of the issuer’s geographic location or activity.

to create the conditions for future growth depend partly on their ability to collect taxes from companies. Similarly, a territory can only attract companies if its population is well educated and trained. Lastly, the quality of life within a country cannot be assessed without taking into consideration the environmental impacts of the economic players that do business there.

BEST IN CLASS AND SHAREHOLDER ENGAGEMENT

As mentioned earlier, ERAFP has selected a best in class approach to take into consideration the ESG criteria underlying its SRI Charter for all its investments. Operationally, this principle takes the form of detailed rules that make it possible to determine, based on the scores that the issuers obtain for ERAFP’s SRI criteria, those that can be considered as the best in their category.

For large listed companies, for example, the best in class principle is applied by implementing two successive filters. If this SRI approach were limited to the application of quantitative rules established for an issuer in question, it can be said in general, non-exhaustive terms that:

- a given state’s debt is sustainable only if all the conditions for lasting growth are met: an educated, trained population, high-quality infrastructures and controlled environmental impacts;
- a company will only be profitable over the long term if:
  - it anticipates its future needs in terms of key skills and trains its employees accordingly;
  - it puts in place the governance mechanisms needed to carry out its business efficiently, and
  - controls the costs associated with the consumption of natural resources and anticipates future environmental impacts of products or services, (water, air, waste, etc.).

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While the specific ESG factors to take into account vary depending on the category, geographical exposure and activity of the issuer in question, it can be said in general, non-exhaustive terms that:

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  - controls the costs associated with the consumption of natural resources and anticipates future environmental impacts of products or services, (water, air, waste, etc.).
MEASURING THE PORTFOLIO’S EXPOSURE TO CLIMATE RISKS

The consequences of climate change are probably one of the risk factors most likely to have a long-term impact on the value of ERAFP’s assets. That is why, in breaking down the SRI Charter into more detailed issuer evaluation rules, ERAFP has integrated criteria designed to better determine the level of these issuers’ exposure to the various dimensions of climate risk. In particular, under the ‘environment’ value of ERAFP’s SRI Charter, the Limitation of greenhouse gas emissions criterion makes it possible to assess the commitments that issuers have made, the measures they have adopted and the tangible results they have achieved as regards containing and reducing the greenhouse gas emissions associated with their activity. The listed and unlisted companies, the countries and the other issuers that score most highly on this criterion will probably be the best placed to cope with the adjustments needed as a result of climate change measures, such as more stringent regulations, the introduction of a carbon price, client and investor expectations and increased vigilance by civil society.

In order to estimate the degree of control that issuers have over the physical risks associated with climate change (increasing scarcity of natural resources, especially water, increased occurrence of extreme weather events, impacts on biodiversity, etc.) ERAFP also has a number of criteria within its SRI guidelines, in particular Impact prevention as regards water, Preservation of biodiversity and Management of pollution risks.

Conversely, ERAFP’s SRI environment value criterion relating to the Innovative products and services offer makes it possible to promote companies that offer innovative solutions to sustainable development challenges, particularly in the area of the energy and environmental transition. Monitoring an asset portfolio’s average consolidated scores for these criteria can be a way of estimating that portfolio’s exposure to climate change-associated risks. Such an indicator is difficult to interpret, however, and does not provide a detailed picture of the real impact of ERAFP’s assets on the environment.

The search for a better understanding of a portfolio’s degree of exposure to the transitional risks associated with climate change has led investors to acquire specific monitoring tools. Measurement of a portfolio’s carbon footprint, ‘green share’, intensity of contribution to the climate transition, avoided emissions and energy mix alignment with a 2°C scenario are all examples of this approach.

1. Carbon footprint

This involves using greenhouse gas emissions data on portfolio issuers to calculate the carbon intensity of the consolidated portfolio. There are a number of different methods of measuring carbon footprint, each one including a certain number of biases.

Calculation of carbon intensity

At issuer level: factoring in of carbon intensity, in terms of CO2 per unit of either revenue (companies) or GDP (countries)

Allocation to the investor of some of the emissions/revenue in proportion to its share of the issuer’s:
- enterprise value (weighted average)
- debt (for a bond investment)
- capital (for an equity investment)

Aggregation at portfolio level: sum of the CO2 emission shares attributable to the investor

Normalisation (units: CO2 emissions per 2 unit of revenue)

Calculation of absolute emissions

At issuer level: factoring in of non-normalised CO2 emissions

Allocation to the investor of some of these emissions in proportion to its share of the issuer’s:
- enterprise value (capital + debt, for either a bond or an equity investment)

Aggregation at portfolio level: sum of the CO2 emissions attributable to 2 the investor

Units: CO2 emissions per unit of invested 2 amount

NB: In 2013 and 2014, ERAFP used the second, investor carbon ‘responsibility’ measurement method, based on carbon intensity. Since 2015, it has used the third method, which measures the investor’s carbon ‘risk’, based on carbon intensity.
Of the methods presented above, the third strikes us as the most appropriate for factoring in the exposure of ERAFP’s portfolios to the transitional risk associated with climate change. There are a number of reasons for this:

Investor ‘responsibility’ measurements involve allocating a share of portfolio issuers’ CO₂ emissions to the investor, based on its respective ownership share of the capital, debt or enterprise value, as appropriate, of the portfolio’s security issuers. The underlying idea is that as a shareholder or creditor, an investor is responsible for a share of the CO₂ emissions of the entity in question.

To our mind, these methods present a major limitation: at constant CO₂ emission and activity levels, the share of a company’s emissions attributable to an investor fluctuates based on the company’s capitalisation, debt level or, more generally, financial structure. For example, the holder of a bond in a company whose overall debt increased would be allocated a smaller share of that company’s CO₂ emissions, whereas the company’s emissions and activity levels may have remained the same.

Similarly, the contribution to a portfolio’s carbon footprint of two companies that have the same weight in the portfolio, the same level of CO₂ emissions, the same activity, the same geographical exposure and the same revenue varies depending on the market capitalisation or level of debt of each company. Yet these two companies have the same exposure to the transitional risk associated with climate change: indeed, they would have to bear the same level of costs or constraints if a carbon ‘tax’ or binding regulation came into force.

For these reasons, these methodologies do not seem to us to be the most appropriate for factoring in a portfolio’s exposure to the transitional risk associated with climate change.

Furthermore, for a universal investor such as ERAFP, which invests in various asset classes and seeks to adopt a cross-cutting approach that handles extra-financial considerations consistently across its entire portfolio, these methods have the disadvantage of being difficult to transpose into certain asset classes. In particular, to us they seem inappropriate for calculating a sovereign portfolio’s carbon footprint, insofar as, at relatively equivalent levels of development, countries’ debt levels can differ considerably; in a portfolio, the ‘carbon’ contribution of a country with very little debt that emits little CO₂ could be higher than that of a highly indebted country with a poor greenhouse gas emissions record.

An alternative approach consists in considering that a portfolio’s exposure to climate risk is reflected by the average carbon intensity of its constituent companies weighted by their respective weights in the portfolio.

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Measurement of the ‘green share’:

- **At the issuer level**: share of revenue that corresponds to a green activity within the meaning of the energy and environmental transition law. This share is determined by a specific methodology for each of the six sectors studied.

  Automotive sector example: the green share is defined as the proportion of revenue generated by the sale of electric and hybrid vehicles.

- **Aggregation at portfolio level**: average of green shares weighted by the issuers’ weight in the portfolio for the six sectors studied.

- **Unit**: average green share % (definition specific to each sector).

This ‘green share’ indicator is interesting, as it allows us to identify a certain number of key technologies for the energy and environmental transition, but on the downside it has technological biases and does not evaluate the issuer’s overall climate performance.

29 An issuer’s performance for this type of indicator is assessed by comparing it with the average observed in the issuer’s sector.
At the end of 2016, ERAFP launched a call for tenders to broaden the risk and opportunities analysis for its climate change asset portfolio. Following this procedure, a number of specialised companies were selected. Trucost, in partnership with I Care & Consult, Grizzly Responsible Investment and Beyond Ratings, were appointed to analyse the equity and corporate bond portfolios, while Carbone 4 was selected to analyse the real estate, private equity and infrastructure portfolios.

More specifically, among the tasks allocated to the various companies responsible for analysing ERAFP’s equity and bond portfolios, Trucost is in charge of measuring the carbon footprint for the equity and corporate bond portfolios, while Beyond Ratings is responsible for measuring that of the public sector bond portfolio. For calculating companies’ carbon footprint, Trucost prioritises the use of company-sourced data on direct greenhouse gas emissions (scope 1) and indirect greenhouse gas emissions (scope 2 and first-tier suppliers). For countries, the analysis involves factoring in not only countries’ territorial greenhouse gas emissions but also the emissions associated with the carbon content of their imports and exports.

I Care & Consult and Grizzly, meanwhile, are in charge of analysing the contribution to the energy transition and the 2°C alignment for the equity and corporate bond portfolios (green share, intensity of contribution to the climate transition and emissions avoided).

With regard to the real estate, private equity and infrastructure portfolios, the first year of partnership with Carbone 4 is being devoted to designing a methodology for measuring and analysing these portfolios’ exposure to climate change issues. We expect to publish the initial results of this work in the 2018 public report.

### Measurement of intensity of contribution to the climate transition:

- **At issuer level**: evaluation of the company’s performance on a scale of 0% to 100%:
  - 100% if the activity has a carbon performance equal to that of green activities, as defined by the TEEC label (renewable energies, electric vehicles, etc.).
  - 0% if the activity has a carbon performance corresponding to the average for its sector.
  - Between 0 and 100% if the carbon performance is located between these two points on the scale.

Automotive sector example: each car maker’s carbon intensity (gCO2e/km) was plotted on a scale ranging from the average European car’s carbon performance to that of an environmentally friendly electric vehicle (base European electricity).

- **Aggregation at portfolio level**: average intensity of contribution to the climate transition weighted by the share of the issuers in the portfolio for the six sectors studied.

- **Unit**: average % contribution to the climate transition (measurement specific to each sector).

### Advantages of this method:

- The use of physical indicators, which give an accurate picture of the company’s carbon performance, free from financial bias.
- Using a carbon performance indicator graded from 0 to 100%, it can give an overall assessment of an activity’s carbon performance that goes beyond a binary definition (0% or 100%) of a green activity, while remaining within the bounds of TEEC certification.

### Measurement of emissions avoided:

- **At issuer level**: emissions avoided by a higher than average carbon performance for each sector - a carbon performance preferably defined based on physical indicators such as gCO2e/Kwh, both for the issuer and the baseline scenario, will be used to avoid economic bias.
- **Aggregation at portfolio level**: sum of the avoided CO2 emissions attributable to the investor.

- **Unit**: CO2 emissions avoided per invested amount.
IMPLEMENTATION OF THE INVESTMENT POLICY

For ERAFP, which has been a fully socially responsible investor since inception, SRI comes into play less in terms of making changes to our investment policy than in assessing the consequences of our choices.

Asset class by asset class, mirroring the portfolio’s financial profile, ERAFP measures issuers’ consolidated ESG rating results and analyses changes therein over the year. It is worth noting that ERAFP’s best in class approach remains selective for issuers, as almost half of the companies in the benchmark indices are excluded from its investment universe.

When available, the sub-portfolio’s carbon footprint is presented after this analysis and a brief explanation made of how it was measured. In 2016, as in 2015, carbon footprint printing was applied to the equity, corporate bond and public sector bond portfolios. This year, we were able to include convertible bonds, thereby increasing the portion covered by carbon footprint measurement to 89% of ERAFP’s total assets, compared with 87% in 2015.

Moreover, the results of engagement initiatives, voting at general meetings of shareholders and a comparison of the portfolio’s energy mix with a 2°C scenario will now be presented for the consolidated equity portfolio. As well as this additional information, the public report offers an analysis of this portfolio’s contribution to the energy and environmental transition and to the climate targets for the utilities, automobile, passenger transport, goods transport, cement and iron and steel sectors. This analysis is based on the following three factors:

- The green share.
- The intensity of contribution to the climate transition.
- Emissions avoided.

These indicators were analysed for all ERAFP’s equity and bond portfolios. For the sake of conciseness and presentation, the results of these measurements are only presented in detail for the consolidated equity portfolio. The results of these measurements for the other asset classes are however available in the appendix, and may be mentioned within this report to illustrate certain results.

IMPACT OF THE SRI APPROACH ON INVESTMENTS’ FINANCIAL PERFORMANCE

This subject’s relatively short history and complexity make it impossible to draw any definitive conclusions. While it is difficult to demonstrate that the SRI approach has had a positive impact on the performance of ERAFP’s investments, it would be just as misplaced to assert that the opposite was true. Nevertheless, within the framework of its monitoring of investments, ERAFP actively monitors the signals that are most likely to shed light on the financial impact of its SRI approach.

Sovereign bonds

There is a strong negative correlation between a state’s SRI rating and the cost of its debt (from a statistical point of view, the SRI score ‘accounts for’ the vast majority of the yield). These indicators can prove complementary in the evaluation of a state’s debt quality. For example, while it is obvious that a low SRI score is the reflection in a different form of weakness that could come to light in a financial crisis, a high SRI score does not guarantee that a country’s public finances will be well managed.

Equities and corporate bonds

ERAFP’s SRI guidelines are applied in all of its mandates, based on procedures that can vary from one manager to the next. While the delegated asset managers notably use different sources for their extra-financial research, they must analyse and select issuers using the criteria and rules that ERAFP has drawn up.

The monitoring of the managers’ performance since the launch of the first equity mandates in 2007 shows that, on average, these managers have created value, as ERAFP’s equity portfolio has generated a relatively marked outperformance compared to its benchmark index. This leads to the conclusion that SRI is not a handicap to financial performance. Intuitively, one could even consider that the factoring in of environmental, social and governance criteria should lead to the selection first and foremost of securities in companies that use natural resources efficiently, seek to manage their human resources proactively and in a forward-thinking way, have corporate governance practices that conform to the most advanced standards and are therefore better placed to generate positive, stable results over the long term.

Nevertheless, over the period of observation, the outperformance of ERAFP’s portfolio has not been uniform across all its mandates, nor has it been constant over time; this is because the SRI approach is only one of many factors that can influence a fund’s financial performance, others being management style and quality, behavioural biases and market conditions, which makes it particularly difficult to isolate SRI’s specific impact.
The bond portfolio totalled €13,015 million at amortised cost.

At 31 December 2016, the bond portfolio (excluding convertible bonds) totalled €13,015 million at amortised cost, representing 60.1% of ERAFP's total assets. It is split between fixed-rate sovereign and equivalent bonds (32.4% of total assets, or €7,014 million), inflation-indexed bonds (9.1%, or €1,976 million) and corporate bonds (18.6%, or €4,025 million).

At end-2016, the bond portfolio had generated unrealised capital gains equivalent to 19.3% of its amortised cost.

Public sector bonds
ERAFP manages all public sector bonds directly, their value at amortised cost at end-2016 was €18,990 million. Sovereign bonds accounted for 92% of this portfolio, or around 38% of the Scheme's total investments. They include fixed-rate bonds and inflation-indexed bonds issued by euro-zone sovereigns as well as bonds guaranteed by these sovereigns, such as bonds issued by Kreditanstalt für Wiederaufbau, the German national development bank. The other public sector bonds are issued by OECD local and regional authorities and supranational institutions.

Euro-denominated corporate bonds
In addition to delegated management, which remains preponderant, since 2015 ERAFP has held shares in external subordinated debt funds - now valued at €40 million - with the objective of gaining exposure to a bond segment not covered by the mandates that requires active management. It also invested €35 million in loan securitisation funds (with a total future commitment of €90 million).

At the year-end, the ‘euro credit’ class, consisting of euro-denominated corporate bonds, totalled €3,524 million at amortised cost, or 16.3% of ERAFP’s total assets. Note that the euro credit managers also manage a part of the Scheme’s cash and cash equivalents.
US dollar-denominated corporate bonds

The dollar-denominated corporate bond sub-portfolio was created in 2014, and at 31 December 2016, it totalled €400 million at amortised cost, representing 1.8% of ERAFP’s total assets.

BREAKDOWN OF US DOLLAR-DENOMINATED CORPORATE BONDS BY SECTOR AND RATING AT 31 DECEMBER 2016 (AT AMORTISED COST)

BY SECTOR
- Consumer staples: 3.4%
- Industrials: 3.8%
- Materials: 4.8%
- Healthcare: 5.1%
- Utilities: 5.9%
- Technology: 7.3%
- Energy: 9.7%
- Telecommunications: 11%
- Financials: 38%
- Discretionary consumer goods: 11%

BY RATING
- AAA: 0.6%
- AA: 7.5%
- BBB: 16%
- BB: 48%
- B: 7%

Emerging country corporate bonds

In 2016, ERAFP continued its policy of diversifying its bond investments into emerging country corporate bond funds denominated in hard currencies such as US dollar and euro, investing some €100 million, or 0.5% of its assets, therein.

SRI PROFILE

Sovereign bonds

All issuers in ERAFP’s portfolio pass its SRI criteria according to Vigeo’s ratings. Indeed, all the countries whose bonds are part of ERAFP’s portfolio have obtained an average SRI score of more than 50/100, the minimum rating defined in ERAFP’s SRI guidelines for this asset class.

The significant difference in ratings between 2015 and 2016 (portfolio rating of 81.5 in 2016 vs. 69 in 2015) is attributable to the change of sovereign bond data provider30 in 2016. The effect of the change of methodology between the former and current provider is usually to increase the portfolio and index ratings. This is also the reason for the significant difference between 2007 and 2016.

The performance gap with the index continued to narrow: it now stands at 1.4 points, compared with 2.2 points at the end of 2007, when the first extra-financial evaluation of the portfolio was carried out. This is attributable to an increase in the index’s average rating, resulting from changes in its composition: before the financial crisis, the index, which is made up exclusively of securities issued by euro-zone countries considered by the financial rating agencies to be ‘investment’ grade, included securities of countries whose financial rating has since been downgraded. Those countries, whose average SRI ratings are lower than those of other euro-zone countries, are no longer represented in the index, which has resulted in an automatic increase in the index’s average SRI rating since 2007. The portfolio’s outperformance on extra-financial criteria relative to its benchmark is attributable mainly to the underweighting in the portfolio, relative to the index, of securities issued by countries with a below-average SRI rating and credit quality. The fact that there is a relatively strong correlation between the financial and extra-financial assessments of sovereign issuers supports this argument. It should also be noted that, given that the investment universe of euro-denominated securities issued by OECD countries is of limited size and relatively homogeneous as regards the SRI characteristics of its components, the spread between the portfolio’s average SRI rating and that of the index cannot increase significantly.

CARBON FOOTPRINT

The carbon intensity of ERAFP’s portfolio is 5% lower than that of the benchmark index, compared with 21% in 2015. This positive difference is mainly attributable to the portfolio’s overweighting of French government-issued securities.

This relates to the fact that nearly three-quarters of the energy produced in France is from a low-carbon, nuclear source. So while the share of renewable energies in its energy mix remains relatively low, France’s ratio of greenhouse gas emissions to GDP is one of the euro-zone’s lowest.

30 See inset above on extra-financial rating agencies

31 Beyond Ratings has developed a methodology that makes it possible to take into consideration not only countries’ territorial emissions but also those associated with their specific imports and exports
CARBON FOOTPRINT

The carbon intensity of ERAFP’s euro-denominated corporate bond portfolio is significantly higher (+58%) than that of its benchmark index.

Although there was a reduction in the gap compared with last year (58% in 2016 versus 65% in 2015), this figure must be considered in light of the change of benchmark index over that same period.

The performance gap is mainly attributable to the strong overweighting of utilities (+9.6%) in the portfolio compared with the index, this sector emitting more greenhouse gases on average than other sectors. Indeed, in contrast with most of ERAFP’s equity management mandates, bond mandates are not suited to a benchmarked management approach and can therefore diverge significantly from the composition of the index used as a benchmark for SRI rating or carbon footprinting.

The fact that the portfolio contains a significant proportion of utility sector securities is attributable to:
- its defensive nature (non-cyclical activity, regularity of financial flows, etc.), which managers favour in times of market volatility, of which 2014 to 2016 have a significant share of avoided emissions (+9.6%); and
- the not-inconsequential number of undated bonds issued by companies in this sector, these bonds offering relatively attractive yields.

CHANGE IN THE AVERAGE SRI RATING FOR THE LOCAL AND REGIONAL AUTHORITY BOND PORTFOLIO COMPARED WITH THAT OF THE INDEX

Local and Regional Authority Bonds

As in 2015 and 2014, ERAFP did not subscribe to any local or regional authority bond issues in 2016, given the very low interest-rate environment and often relatively small size of these bond issues. The average SRI rating of ERAFP’s portfolio has increased considerably since 2007 and is now significantly higher than that of the benchmark index. This is due not only to an improvement in the SRI ratings of the local and regional authorities represented in ERAFP’s portfolio but also to the sale in previous years of local and regional authority issues that, from an SRI standpoint in particular, did not meet ERAFP’s requirements, specifically in the area of extra-financial reporting. This very wide spread relative to the index thus reflects mainly the lack of portfolio representation of local and regional authorities that do not publish formal reporting on environmental, social and governance issues – which negatively impacts their SRI rating – but which nevertheless form part of the index.

However, the slight fall in the SRI rating of ERAFP’s portfolio between 2015 and 2016 (from 58.3 to 57.6) is mainly attributable to the reduction of the proportion of holdings in the Paris municipal authority – which scores highly for SRI – due to the sale of a line of matured securities.

Carbon footprint not calculated for this sub-portfolio owing to a lack of available data.

EURO-DENOMINATED CORPORATE BONDS

The SRI performances of both ERAFP’s euro-denominated corporate bond portfolio and the benchmark index have improved since the launch of the first mandates in 2009. The portfolio’s SRI rating of 52.2/100 now stands 5.9 points above that of the index.

At the end of 2016, the decision was taken to substitute the benchmark index with one that has a closer sector categorisation to that used for the equity mandates. Accordingly any comparison of the results with those of previous years must be carried out with caution.
DOLLAR-DENOMINATED CORPORATE BONDS

According to Vigeo’s assessment at the end of 2016, the portfolio obtained a worse SRI rating than its benchmark index, and its rating deteriorated compared with that of 2015. These results must be interpreted with caution, insofar as:

- the index is composed wholly of investment grade securities, whereas ERAFP’s portfolio is made up for more than 20% of high-yield securities;
- the SRI performance of high-yield securities is lower than that of investment grade securities, mainly owing to lower transparency;
- Vigeo’s coverage of the portfolio has increased over the last year, and newly rated issuers often have a worse SRI rating than those already covered.

Accordingly, the management process for delegated asset managers responsible for high-yield securities is based on:

- automatic exclusion of any company that has been found to breach international standards at the time that the portfolio is created;
- monitoring throughout the course of the mandate of exposure to portfolio companies involved in controversial practices potentially involving a breach of international standards;
- rating of portfolio companies not covered by extra-financial rating agency research on a simplified corporate SRI scale;
- gradually improving the social, environmental and corporate governance practices of portfolio companies, notably by initiating dialogue with them wherever possible.

CARBON FOOTPRINT

As is the case for euro-denominated corporate bonds, ERAFP’s portfolio has a higher carbon intensity than its index, although the gap is considerably narrower (+12%). This result is attributable to the portfolio’s underweighting relative to the index in terms of the financial services, healthcare and insurance sectors, which have low CO2 emissions. In addition, the choice of securities within the utilities sector continues to have a negative impact on the fund’s carbon intensity, but this subject is monitored with the delegated asset manager responsible for the portfolio and will continue to be so in 2017.

This portfolio’s carbon footprint did however improve compared to last year (+15%). Furthermore, the portfolio has a relatively large green share and contribution to the climate transition and a relatively high level of avoided emissions, at 24%, 26% and 372 TCO2/€ million invested, respectively (see appendix).
SRI PROFILE

As the regions covered by each mandate are different, two separate benchmark indices are used to assess the SRI quality of these two portfolios. Both convertible bond portfolios posted an improvement in SRI performance compared with 2015 (SRI performance of the European bond portfolio: 47.5 in 2016 vs. 45.9 in 2015; SRI performance of the international convertible bond portfolio: 40.1 in 2016 vs. 39.6 in 2015). Furthermore, although the SRI performance of the international convertible bond portfolio has not quite returned to its 2013 level yet, that of the European convertible bond portfolio is better than in 2013. Both portfolios continue to outperform their respective benchmarks, indicating that the best in class SRI strategy has been applied correctly in these two delegated management mandates.

The rating difference and the trend therein between the European and international portfolios can be attributed to the very strong contingent of North American and Asian issuers in the international portfolio. ERAFP’s SRI guidelines place strong emphasis on the consideration of social criteria such as respect of union rights and the encouragement of labour-management dialogue, which European companies generally take more into account in day-to-day management than their US and Asian counterparts, enabling them to achieve higher scores.

CARBON FOOTPRINT

Calculation of the carbon footprint was extended this year to ERAFP’s convertible bond portfolios. The result is presented on an aggregate basis for the two convertible bond portfolios – Europe and International.

The consolidated convertible bond portfolio’s weighted average carbon intensity was 39% lower than that of its benchmark index.

CHANGE IN THE AVERAGE SRI RATING FOR THE CONVERTIBLE BOND PORTFOLIOS COMPARED WITH THOSE OF THEIR INDICES

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERAFP portfolio rating (Europe)</td>
<td>45.3</td>
<td>47.5</td>
</tr>
<tr>
<td>Benchmark index rating (Europe)</td>
<td>42.8</td>
<td>43.8</td>
</tr>
<tr>
<td>ERAFP portfolio rating (International)</td>
<td>34.1</td>
<td>40.1</td>
</tr>
<tr>
<td>Benchmark index rating (International)</td>
<td>31.1</td>
<td>38.0</td>
</tr>
</tbody>
</table>

THE EQUITY PORTFOLIO

At 31 December 2016, the equity portfolio totalled €5,474 million at amortised cost, representing 25.3% of ERAFP’s total assets. It was split between euro-zone company equities (20.6% of total assets, or €4,467 million) and international blue chips (4.7%, or €1,007 million).

At 31 December 2016, ERAFP had delegated the management of its equity portfolio, with the exception of direct investments in listed real estate funds in the amount of €20 million, which enable it to benefit from diversified exposure to the European real estate sector and the liquidity of the stock market.

As regards the rest of the portfolio, the two asset classes were split between 13 mandates, including eight euro-zone equity mandates entrusted to Amiral Gestion, Amundi, AXA Investment Managers Paris, BNP Paribas Asset Management (two mandates), Edram, Rothschild et Cie Gestion, Sycomore AM and Tobam AM, and four international equity mandates entrusted to Natixis AM and Robeco Institutional Asset Management (North America region) and Comgest SA and Robeco Institutional Asset Management (Pacific region).

The equity portfolio had generated unrealised capital gains at end-2016 equivalent to 34.5% of its amortised cost, an increase from 2015 in a favourable market context. In terms of risk dispersion, the ten largest investment lines in the various euro-zone equity mandates represented 19.9% of the asset class at the year-end, a lower percentage than that for the ten largest lines in the MSCI EMU SRI benchmark index at that date (29.2%). Risk dispersion was even more marked in the international equities asset class: the ten largest investment lines represented just 18.3%. By contrast, the benchmark index was even more dispersed than the portfolio (10.3% in the ten largest lines).

BREAKDOWN OF EQUITIES BY GEOGRAPHIC REGION AT 31 DECEMBER 2016 (AT AMORTISED COST)

<table>
<thead>
<tr>
<th>Geographic Region</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>US equities</td>
<td>10%</td>
</tr>
<tr>
<td>Pacific equities</td>
<td>14%</td>
</tr>
<tr>
<td>European equities</td>
<td>77%</td>
</tr>
</tbody>
</table>

Source – ERAFP

The equity portfolio totalled €5,474 million at amortised cost.

The equity portfolio had generated unrealised capital gains at end-2016 equivalent to 34.5% of its amortised cost.
SRI POLICY: TOWARDS ALIGNMENT WITH INTERNATIONAL OBJECTIVES FOR LIMITING GLOBAL WARMING

SRI PROFILE

Euro-zone equities

ERAFP’s European equity portfolio’s SRI rating has improved virtually continuously since 2007, as has its spread against the benchmark index’s SRI rating. In absolute terms, average SRI rating of 53.9/100, the portfolio’s SRI performance continues to improve, and reached a new high this year. This positive trend is due not only to the now proven expertise of the asset management companies in euro-zone equities SRI management but also to their excellent understanding of EERAPF’s specific SRI approach. On this point, regular meetings between EERAPF and its delegated asset managers ensure that the institution’s expectations are properly taken into account in the portfolio stock-picking process.

It should also be noted that, while positive, the gap between the portfolio’s average SRI rating and that of the index is smaller than the gap for the euro-denominated corporate bond management mandates (see p.48). As mentioned previously, this reflects the greater homogeneity of the European large listed corporates investment universe in terms of implementing social and environmental responsibilities; the benchmark index’s relatively high score suggests that they have reached a level of maturity in this regard.

North American equities

The first investments in listed North American equities were carried out in 2014 under two management mandates. In absolute terms, the portfolio’s SRI ratings are significantly lower than those of EERAPF’s euro-zone equity portfolios, confirming the relative immaturity of US corporates as regards corporate social responsibility principles and the alignment of their strategies with the need for sustainable development.

However, the portfolio’s average SRI rating continued to improve in 2016, as did the related gap with regard to its benchmark. This increase can be partly attributed to EERAPF’s continuing efforts to maintain dialogue with its delegated asset managers so that its guidelines and, more generally, its SRI expectations are duly taken into account.

Pacific region equities

According to the assessment carried out by Vigeo at end-2015, while on average the consolidated portfolio scored less highly for SRI than its benchmark index, its performance improved slightly compared with 2015. These results should be interpreted with circumspection insofar as Vigeo’s coverage of the companies represented in the portfolio is less extensive than for the other asset classes it analyses.

This bias related to the rating agencies’ lower coverage of a part of the investment universe is particularly marked for one of EERAPF’s two delegated asset managers investing in mid-sized Asian companies.

In this manager’s case, the management process relies largely on dialogue with the portfolio companies aimed at increasing their transparency. For its part, EERAPF ensures at its regular meetings with the managers that its expectations are duly taken into consideration, although this is not yet explicitly reflected in the ratings that Vigeo issues.

breakdown of euro-zone equities by sector and country at 31 december 2016 (at market value)

Source — Vigeo

change in the SRI rating of the North America equities portfolio vs. the index

Source — Vigeo

change in the SRI rating of the euro-zone equity portfolio compared with that of its index

Source — Vigeo

SRI RATING OF THE PACIFIC REGION EQUITY PORTFOLIO COMPARED WITH THE INDEX

Source — Vigeo

benchmarked index rating

ERAPF portfolio rating
In 2016, the portfolio’s weighted average carbon intensity was 35% lower than that of the benchmark index. Most of the performance arose from a very positive sector effect (underweighting of the utilities sector and, to a lesser extent, overweighting of the technology sector).

The portfolio’s carbon intensity decreased considerably between 2015 and 2016 (-12%).

This resulted from better sector allocation and stock-picking, driven in particular by the technology sector, for which the portfolio overweighting relative to the index was even greater than in 2015.

In 2016, the portfolio’s weighted average carbon intensity was 20% lower than that of the benchmark.

This performance is attributable to a very positive sector effect (underweighting of the utilities sector, overweighting of banks).

The portfolio’s carbon intensity also decreased significantly between 2015 and 2016 (-11%).

This can be attributed to better sector allocation and overall stock picking, driven in particular by improved stock picking in the construction and materials sector.

At the aggregate level, the portfolio’s carbon intensity was 17% lower than that of the index. This sound relative performance is attributable to a positive stock-picking effect within almost every sector, particularly utilities and construction and materials, and is a mark of the effectiveness of ERAFP’s best in class SRI approach.

Although the portfolio’s carbon footprint increased slightly compared with last year (+1%), the portfolio’s spread relative to the benchmark index widened over the same period (17% in 2016 vs. 12% in 2015).

BREAKDOWN OF INTERNATIONAL EQUITIES BY SECTOR AND GEOGRAPHIC REGION AT 31 DECEMBER 2016 (AT MARKET VALUE)

Source – ERAFP

CARBON FOOTPRINT

Euro-zone equities
In 2016, the portfolio’s carbon intensity was 12% lower than that of the benchmark index.

This performance mainly reflected a positive stock-picking effect compared with the index in the utilities and construction and materials sectors.

While the portfolio’s carbon intensity increased slightly between 2015 and 2016 (+5%), the positive gap in relation to the benchmark also increased (12% in 2016 vs. 9% in 2015).

The low increase in carbon intensity reflected the marginal increase in carbon intensity in the utilities and chemical industry sectors.

Portfolio utilities companies remain less carbon intensive than those in the index, however.

CARBON FOOTPRINT OF ERAFP’S EQUITY PORTFOLIOS

Source – Trucost

Composite index: index reconstituted to take into account the portfolio’s allocation between the various regions

TOWARDS COMPLIANCE WITH INTERNATIONAL CLIMATE OBJECTIVES: MEASURING THE 2°C ALIGNMENT OF ERAFP’S EQUITY PORTFOLIO

ENERGY MIX OF ERAFP’S EQUITY PORTFOLIO COMPARED WITH THE INTERNATIONAL ENERGY AGENCY’S SCENARIOS (AT AMORTISED COST)

Source – Trucost based on the IEA’s scenarios
A portfolio with a lower carbon footprint than its benchmark index is made up of shares in companies that, all other things being equal, will on average be better placed than their competitors to tackle the challenges brought about by the necessary energy transition.

However, this measurement cannot provide information on the portfolio’s level of alignment with the various climate scenarios drawn up by the Intergovernmental Panel on Climate Change (IPCC). As a reminder, the 195 countries that took part in COP 21 at the end of 2016 undertook to limit global warming to 2°C above the pre-industrial temperature - and to use their best endeavours to limit it to 1.5°C.

The International Energy Agency (IEA) breaks these climate scenarios down into energy road maps, which define coherent energy mix scenarios for 2030 and 2050. The proportion of nuclear power will need to accelerate from 2030 in order to achieve alignment with the IEA’s 2°C scenario, which is defined as the proportion of fossil fuels in ERAFP’s portfolio that generate electricity) with the IEA’s energy mix scenarios for 2030 and 2050.

This year, in addition to measurement of the carbon footprint and analysis of the compliance of the equity portfolio’s energy mix with a 2°C scenario, new indicators were analysed: green share, intensity of contribution to the climate transition and emissions avoided.

For the six sectors analysed, which represent a significant proportion (around 10%) of the portfolio, the average green share was high, at around 14%. The average intensity of contribution to the climate transition was similar, at around 13%. The main contributors to the consolidated equity portfolio’s green share were the goods transport sector, passenger transport sector and steel production sectors, which respectively accounted for 62%, 24% and 22% of the green share. The green share of the goods transport sector is measured as the proportion of revenue generated by rail, sea and river freight sales. The green share of the passenger transport sector is measured as the proportion of revenue generated by rail transport sales. Lastly, the green share of steel production is defined as the proportion of output produced from recycled steel.

The main contributors to the portfolio’s intensity of contribution to the climate transition were the passenger transport sector (24%), steel production (25%) and utilities (14%) sectors.

As regards the passenger transport sector, the consolidated equity portfolio’s intensity of contribution to the climate transition means that the portfolio contributes 24% more than the average passenger transport sector method mix, as the contribution to the climate transition is attributable in full to the environmentally friendly rail solution’s carbon performance.

As regards steel production, the intensity of contribution to the climate transition is attributable in full to the type of activity that portfolio companies carry out. ERAFP’s companies focus on downstream (processing and shaping) rather than upstream (blast furnaces) processes, and therefore emit fewer greenhouse gases (GHGs).

Lastly, as regards the utilities sector, the portfolio has a 14% higher contribution to the climate transition than the global mix’s carbon performance, as it is attributable in full to the 100% renewable environmentally friendly solution.

### CLIMATE CHANGE RISKS AND OPPORTUNITIES: NEW INDICATORS

#### GREEN SHARE AND INTENSITY OF CONTRIBUTION TO THE CLIMATE TRANSITION FOR THE CONSOLIDATED EQUITY PORTFOLIO

<table>
<thead>
<tr>
<th>Sector</th>
<th>Weight in the portfolio</th>
<th>Green share</th>
<th>Intensity of contribution to the climate transition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilities</td>
<td>2.8%</td>
<td>7%</td>
<td>14%</td>
</tr>
<tr>
<td>Automotive</td>
<td>3.0%</td>
<td>2%</td>
<td>8%</td>
</tr>
<tr>
<td>Passenger</td>
<td>1.7%</td>
<td>24%</td>
<td>24%</td>
</tr>
<tr>
<td>Goods</td>
<td>0.6%</td>
<td>62%</td>
<td>0%</td>
</tr>
<tr>
<td>Cement</td>
<td>0.9%</td>
<td>10%</td>
<td>9%</td>
</tr>
<tr>
<td>Steel</td>
<td>0.9%</td>
<td>22%</td>
<td>25%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>10.2%</td>
<td>14%</td>
<td>13%</td>
</tr>
</tbody>
</table>

Source — I CARE & CONSULT

### EMISSIONS AVOIDED BY THE CONSOLIDATED EQUITY PORTFOLIO

<table>
<thead>
<tr>
<th>Sector</th>
<th>Avoided GHG emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TCO2/year</td>
</tr>
<tr>
<td>Utilities</td>
<td>2.8%</td>
</tr>
<tr>
<td>Automotive</td>
<td>3.0%</td>
</tr>
<tr>
<td>Passenger</td>
<td>1.7%</td>
</tr>
<tr>
<td>Goods</td>
<td>0.8%</td>
</tr>
<tr>
<td>Cement</td>
<td>0.9%</td>
</tr>
<tr>
<td>Steel</td>
<td>0.9%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>10.2%</td>
</tr>
</tbody>
</table>

Source — I CARE & CONSULT

---

33 Breakdown of current electricity production by primary energy source; this breakdown is expected to change given in particular the investments made by various operators to reduce their dependence on fossil energies.
For the six sectors analysed, 'avoided emissions' are defined as emissions avoided as a result of a higher performance than the average performance for each sector. In order to avoid economic bias, the definition of carbon performance is based on physical indicators (e.g. gCO₂ /Kwh), for both the issuer and the benchmark scenario.

The avoided emissions measured are the avoided emissions of issuers that have an intensity of contribution to the climate transition greater than zero. These are issuers whose carbon performance beats the global sector average. ‘Excessive’ emissions by issuers with a lower carbon performance than the sector average are not taken into account.

At the portfolio level, this indicator is expressed:

- In absolute terms (based on ERAFP’s % holding in the companies avoiding GHG emissions), i.e., in tonnes of CO₂ per year.
- In relative terms, by dividing these avoided emissions by the amounts invested. i.e., in tonnes of CO₂ per € million invested.

For the six sectors analysed, the intensity of contribution to the energy transition, which is positive for five of the six sectors (ranging from 8% for automotive to 25% for steel production), makes it possible to generate avoided emissions in each of these five sectors. Due to the relative carbon intensities of these various sectors, it is nevertheless the portfolio’s utilities sector issuers (and to a lesser extent those of the cement and steel sectors) that have the highest ratio of avoided emissions per € million invested.

For electricity-producing issuers in the utilities sector with a higher carbon performance than the global average, this ratio comes to 658 TCO₂e/year/€ million invested.

For all six sectors analysed, the emissions avoided by issuers with a better-than-average carbon performance amounted to approximately 175,000 tonnes of CO₂e/year, i.e. an average ratio of 242 tonnes of CO₂e per € million invested.

### THE MULTI-ASSET PORTFOLIO

Amundi holds this mandate, which was first awarded in 2013, with the aim of maximising performance while complying with ERAFP’s SRI Charter and optimising the risk-return ratio by implementing a diversified, flexible and dynamic asset allocation.

The fund is managed using a risk budget, based on a fundamental approach, with no benchmark constraint. The risk budget for this fund was set at 25% for 2016.

At 31 December 2016, the multi-asset portfolio totalled €548 million at amortised cost, representing 2.5% of ERAFP’s total assets. It had generated unrealised capital gains equivalent to 9.9% of amortised cost, an increase compared with 2015. The fund benefited essentially from its exposure to emerging assets.

### SRI PROFILE

ERAFP has developed specific application provisions regarding its SRI approach to management of the multi-asset fund-of-funds portfolio. It decided that the SRI eligibility of funds open to selection by Amundi would be determined based on:

- An analysis of the management process put in place; the only funds eligible are those based on a best in class SRI approach or adopting a particular environmental (reduction of climate change, protection of water resources, etc.) or social (healthcare, combating poverty, etc.) approach;
- An analysis of the fund’s SRI quality based on the SRI rating of each issuer represented in the fund.

#### BREAKDOWN BY ASSET CLASS AND GEOGRAPHIC REGION AT 31 DECEMBER 2016 (AT AMORTISED COST)

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate bonds</td>
<td>8.9%</td>
</tr>
<tr>
<td>China</td>
<td>12.0%</td>
</tr>
<tr>
<td>France</td>
<td>9.0%</td>
</tr>
<tr>
<td>United States</td>
<td>0.8%</td>
</tr>
<tr>
<td>Euro-zone</td>
<td>16.9%</td>
</tr>
<tr>
<td>Global</td>
<td>23.9%</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>0.8%</td>
</tr>
<tr>
<td>Investment grade bonds</td>
<td>0.8%</td>
</tr>
<tr>
<td>Private equity</td>
<td>1.9%</td>
</tr>
<tr>
<td>Europe</td>
<td>8.2%</td>
</tr>
<tr>
<td>High-yield bonds</td>
<td>7.7%</td>
</tr>
<tr>
<td>Emerging countries</td>
<td>6.5%</td>
</tr>
<tr>
<td>Europe - SRI theme - Smart energy</td>
<td>3.9%</td>
</tr>
<tr>
<td>United States - SRI theme - Smart energy</td>
<td>2.9%</td>
</tr>
<tr>
<td>Equities - SRI theme - Clean energy</td>
<td>4.3%</td>
</tr>
<tr>
<td>Money market</td>
<td>3.1%</td>
</tr>
<tr>
<td>Bonds - Securitisation funds</td>
<td>3.9%</td>
</tr>
<tr>
<td>Europe - SRI theme - Clean energy</td>
<td>4.3%</td>
</tr>
<tr>
<td>Money market - SRI theme - Clean energy</td>
<td>2.9%</td>
</tr>
<tr>
<td>Money market - SRI theme - Smart energy</td>
<td>2.9%</td>
</tr>
</tbody>
</table>

Source – ERAFP
THE REAL ESTATE PORTFOLIO

ERAFP’s real estate portfolio comprises five diversified SRI asset management mandates:
- Three French real estate mandates, two of which are managed by AEW Europe SGP (including ERAFP’s headquarters building) and one by La Française REM:
- Two European real estate mandates, one managed by AXA Real Estate IM SGP and the other by LaSalle IM.

At 31 December 2016, the real estate portfolio totalled €1,630 million at amortised cost, representing 7.5% of ERAFP’s total assets. Unreleased commitments of €172 million, pending future deliveries of buildings and the spreading of the mutual funds’ investment periods, can be added to this amount. The portfolio’s unrealised capital gains decreased in 2016 to 3.5% of its amortised cost, reflecting the large number of acquisitions carried out over the year, the related costs of which negatively impacted asset yields.

The real estate portfolio committed to investing €60 million in the Fonds de Logement Intermédiaire.

SRI PROFILE

ERAFP has developed a demanding and innovative SRI process for real estate assets, adapting the five values of its SRI Charter to the asset class. It not only focuses on the real estate assets’ environmental impact, but also integrates the challenges of social progress, respect for human rights, democratic labour relations and good governance into their management. In this respect, taking these challenges into account along the entire management chain is of crucial importance.

This approach also aims to adapt the best in class principle to the specific nature of the real estate asset class by incorporating a dynamic approach consistent with the life span of the assets. In practical terms, this is reflected in a dual SRI performance dimension for the real estate concerned:
- A relative performance that compares the extra-financial characteristics of these buildings and their management (lease, use, maintenance) with other buildings of the same type (same usage and type of construction, equivalent location);
- A dynamic performance that aims to raise each asset to best in class status, using a potential SRI rating estimate at the date of acquisition.

In summary, only real estate assets with a high SRI performance within their category at the time of acquisition or those with high potential for improvement can be selected for ERAFP’s portfolio.

In 2016, the consolidated portfolio’s rating improved compared with 2015. This increase reflected in particular the fruit of efforts made to enhance the SRI performance of assets that have identified room for improvement.

BREAKDOWN BY SECTOR AND GEOGRAPHIC REGION AT 31 DECEMBER 2016 (AT AMORTISED COST)

*Of which, managed residences
**Tourism, leisure and mixed assets as part of a value added strategy

Source – ERAFP

<table>
<thead>
<tr>
<th>Sector</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offices</td>
<td>62%</td>
</tr>
<tr>
<td>Retail premises</td>
<td>22%</td>
</tr>
<tr>
<td>Housing</td>
<td>10%*</td>
</tr>
<tr>
<td>Logistics</td>
<td>3%</td>
</tr>
<tr>
<td>Sweedent</td>
<td>3%</td>
</tr>
<tr>
<td>Europe - diversified</td>
<td>4%</td>
</tr>
<tr>
<td>Czech republic</td>
<td>4%</td>
</tr>
<tr>
<td>Germany</td>
<td>4%</td>
</tr>
<tr>
<td>Finland</td>
<td>4%</td>
</tr>
<tr>
<td>Spain</td>
<td>5%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>10%*</td>
</tr>
<tr>
<td>France</td>
<td>66%</td>
</tr>
<tr>
<td>Other</td>
<td>3%**</td>
</tr>
<tr>
<td>Other</td>
<td>3%</td>
</tr>
<tr>
<td>France</td>
<td>66%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>10%*</td>
</tr>
<tr>
<td>Other</td>
<td>3%**</td>
</tr>
</tbody>
</table>

CHANGE IN THE CONSOLIDATED REAL ESTATE PORTFOLIO’S AVERAGE SRI RATING

Portfolio rating
31/12/2015 70.2
31/12/2016 79.2

Potential rating
31/12/2015 65.6
31/12/2016 79.2

It not only focuses on the real estate assets’ environmental impact, but also integrates the challenges of social progress, respect for human rights, democratic labour relations and good governance into their management.
ENGAGEMENT STRATEGY

Shareholder engagement refers to all forms of dialogue between one or more investors and one or more issuers. It may be collaborative, in other words led by a group of investors, or limited to exchange between a single investor and a single issuer. ERAFP tends to favour collaborative engagement, insofar as:

- A group of investors can exert more influence capitalistically on a company than one investor in isolation;
- The resources needed to carry out the engagement (research, time, etc.) can be pooled between the participants;
- It facilitates the sharing of good practice among investors.

The general meeting is an important date in the company calendar, providing an opportunity for dialogue with shareholders as it requires them to give their opinion directly on a certain number of agenda items.

Since 2012, ERAFP has formalised its shareholder engagement approach by adopting guidelines that define both priority engagement themes and its general meeting voting policy.

Dialogue can also be initiated with a regulatory authority in order to bring about change in the regulatory framework governing investors’ activity, in which case the engagement is generally collaborative, as investors join forces to exert more influence on the regulator. Within the IIGCC, specifically in connection with preparations for COP 21 in Paris, ERAFP lobbied in support of:

- The mandatory publication - in the public domain particularly - of institutional investors’ exposure to climate risks;
- The introduction of a price for carbon.

With the implementation of ERAFP’s new SRI charter, ERAFP’s delegated asset managers are expected to closely monitor controversial practices that issuers may be exposed to. As part of a shareholder engagement approach, ERAFP’s delegated asset manager will initiate dialogue with companies that are involved in proven breaches of international standards or have questionable environmental, social or governance practices.

COLLABORATIVE INITIATIVES

In 2016, ERAFP continued its shareholder engagement initiatives on a number of environmental, social and governance fronts, via both collaborative initiatives and various investor networks and platforms, including:

- the United Nations Principles for Responsible Investment (PRI), on the themes of agricultural supply chain working conditions and the fight against aggressive tax optimisation practices;
- the Extractive Industries Transparency Initiative (EITI);
- Mirova, Natixis Asset Management’s dedicated responsible investment subsidiary, on hydrocarbon exploration in the Arctic and supply chain working conditions in the textile and IT industries;
- The Institutional Investors Group on Climate Change (IIGCC), aiming to promote strategies to European utility companies that enable them to significantly reduce their greenhouse gas emissions;
- ShareAction/RE100, run by the Climate Group and the Carbon Disclosure Project, encouraging listed companies to develop a 100% renewable energy supply over time.

BREAKDOWN OF COLLABORATIVE INITIATIVES SUPPORTED BY ERAFP, BY PRIORITY ENGAGEMENT THEME

Generally speaking, the objective of these collaborative initiatives is to question issuers about their practices, asking them to explain and, if necessary, improve them. In addition to written exchanges, the engagement coordinators organise meetings with willing issuers in order to explain the expected level of transparency and the best practice in their sector, and to discuss the issuers’ intended action plans for the coming years.

In 2016, ERAFP held discussions with 29 companies through the various collaborative initiatives mentioned above. In 14% of cases, ERAFP coordinated these discussions with the companies.

In 2016, ERAFP’s delegated asset managers also carried out shareholder engagement activities on its behalf (see table opposite).

MONITORING OF DELEGATED ASSET MANAGERS’ SHAREHOLDER ENGAGEMENT ACTIVITIES

<table>
<thead>
<tr>
<th>Type of shareholder engagement</th>
<th>Number of companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct engagement</td>
<td>180</td>
</tr>
<tr>
<td>Engagement via a collaborative initiative</td>
<td>8</td>
</tr>
<tr>
<td>Engagement via a collaborative initiative with a leadership role</td>
<td>33%</td>
</tr>
<tr>
<td>Breakdown of engagement initiatives by theme</td>
<td>15%</td>
</tr>
<tr>
<td>Environment</td>
<td>21%</td>
</tr>
<tr>
<td>Social</td>
<td>21%</td>
</tr>
<tr>
<td>Governance</td>
<td>51%</td>
</tr>
<tr>
<td>ESG</td>
<td>13%</td>
</tr>
<tr>
<td>Impact of shareholder engagement</td>
<td>66</td>
</tr>
</tbody>
</table>

Number of companies having made a formal commitment to change following the shareholder engagement procedure.
A VOTING POLICY THAT IS CONSISTENT WITH PUBLIC SERVICE VALUES AND DEMANDING OF LISTED ISSUERS

ERAFP's policy for voting at general meetings (GM) is updated annually, in order to draw lessons from each general meeting season and thereby gradually improve the consistency and completeness of the policy. While the equity asset management companies implement the policy on its behalf, EERAFP ensures it is correctly implemented and positions expressed are consistent by coordinating voting by its delegated asset managers for a number of companies. In 2016, this sample comprised 40 major French companies and 20 major international companies. For the 40 French GMs that EERAFP monitors in depth, at around 6% the average rate of shareholder opposition to management-proposed resolutions remains low, and essentially in line with previous years. In this, France’s third year of ‘Say on Pay’, the average rate of shareholder opposition to management-proposed resolutions decreased (90% approval rate in 2016 compared with 88% in 2015), while over the same period the average total pay of chairmen and chief executives saw record growth of 15%, to €4.3 million.

On other governance subjects, ERAFP welcomes in particular the increasing proportion of women on boards of directors (up to 41% in 2016 from 36% in 2015) as well as that of independent directors (51% in 2016, up from 47% in 2015). For the 20 international GMs that EERAFP monitors in depth, at 5% the average rate of shareholder opposition to management-proposed resolutions is slightly lower than that observed on the French sample. Although the resolutions relating to remuneration policies continue to attract little opposition internationally considering the pay levels seen in this sample, it is worth noting that the gap narrowed between the average overall pay of chief executives in the international sample and that of their French counterparts, and that the level of opposition to pay policies increased in 2016. Meanwhile, at 63% the proportion of independent directors remains higher internationally than that observed in France, whereas conversely, the process of increasing gender balance on boards is at a less advanced stage, with on average only 30% women directors outside France.

Concerning more specifically voting in respect of shares held by ERAFP, the asset management companies voted more frequently against the resolutions proposed. Indeed, ERAFP voted, via its delegated asset management companies, against 39.5% and 56.7%, respectively, of the resolutions tabled by the managements of the French and international companies that it monitors in detail. The main themes opposed concerned:
- managers’ remuneration;
- appropriation of earnings (dividend distribution) in cases where the company’s proposal seemed irresponsible: distribution in excess of net income, excessive debt, imbalance between shareholders’ and employees’ remuneration, significant restructuring carried out during the year, etc.;
- the appointment of new directors or renewal of existing mandates if the board lacked independence or had a poor gender balance, or if certain directors held an excessive number of board appointments.

Lastly, in 2016 ERAFP supported 20 various external resolutions, including six relating to the fight against climate change.

ERAFP ensures its policy is correctly implemented and that positions expressed are consistent by coordinating voting by its delegated asset managers for a number of companies.

<table>
<thead>
<tr>
<th>Governance indicators for the sample</th>
<th>2016</th>
<th>2015</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender balance of boards (%)</td>
<td>41%</td>
<td>36%</td>
<td>31%</td>
</tr>
<tr>
<td>Independence of boards (%)</td>
<td>51%</td>
<td>47%</td>
<td>46%</td>
</tr>
<tr>
<td>Average pay of the chief executive (€)</td>
<td>4,328,418</td>
<td>3,689,856</td>
<td>3,589,105</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Overall results</th>
<th>2016</th>
<th>2015</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolutions (other than those submitted by shareholders) subject to close review by ERAFP</td>
<td>810</td>
<td>772</td>
<td>821</td>
</tr>
<tr>
<td>Average adoption rate per GM of resolutions proposed by management</td>
<td>94.50%</td>
<td>94.40%</td>
<td>93.60%</td>
</tr>
<tr>
<td>Resolutions (other than those submitted by shareholders) rejected by the GM</td>
<td>1.80%</td>
<td>3.60%</td>
<td>0.20%</td>
</tr>
<tr>
<td>Resolutions (other than those submitted by shareholders) adopted by less than 90% of the votes</td>
<td>16.60%</td>
<td>16.90%</td>
<td>20.00%</td>
</tr>
<tr>
<td>Resolutions (other than those submitted by shareholders) adopted by less than 70% of the votes</td>
<td>1.80%</td>
<td>5.50%</td>
<td>5.30%</td>
</tr>
<tr>
<td>Resolutions (other than those submitted by shareholders) adopted by less than 90% of the votes</td>
<td>16.60%</td>
<td>16.90%</td>
<td>20.00%</td>
</tr>
<tr>
<td>Resolutions (other than those submitted by shareholders) adopted by less than 70% of the votes</td>
<td>1.80%</td>
<td>5.50%</td>
<td>5.30%</td>
</tr>
</tbody>
</table>

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Resolutions (other than those submitted by shareholders) adopted by less than 90% of the votes</td>
<td>51.40%</td>
<td>60.50%</td>
<td>43.60%</td>
<td>47.50%</td>
<td></td>
</tr>
<tr>
<td>Average adoption rate per GM of resolutions concerning a dividend distribution</td>
<td>99.10%</td>
<td>95.90%</td>
<td>98.80%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERAFP votes in favour of resolutions concerning a dividend distribution</td>
<td>16.90%</td>
<td>16.50%</td>
<td>19.70%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average adoption rate per GM of resolutions concerning executives’ remuneration</td>
<td>90.80%</td>
<td>87.80%</td>
<td>89.50%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERAFP votes in favour of resolutions concerning executives’ remuneration</td>
<td>67.60%</td>
<td>66.90%</td>
<td>71.80%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average adoption rate per GM of resolutions concerning a dividend distribution</td>
<td>93.80%</td>
<td>94.80%</td>
<td>94.20%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERAFP votes in favour of appointments and/or reappointments of directors</td>
<td>10</td>
<td>9</td>
<td>9</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Shareholders’ resolutions submitted</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Shareholders’ resolutions adopted by the GM</td>
<td>70%</td>
<td>56%</td>
<td>77.78%</td>
<td>83.00%</td>
<td>80%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Résolutions d’actionnaires soumises par l’ERAFP</td>
<td>70%</td>
<td>56%</td>
<td>77.78%</td>
<td>83.00%</td>
<td>80%</td>
</tr>
</tbody>
</table>
ERAFP joined a number of investor coalitions in 2016

**Forum for Responsible Investment (FIR)**

Having from 2007 to 2015 funded the annual FIR-PRI responsible investment research prize, ERFAP joined the FIR as a full member in 2016. The FIR was created by fund managers, social and environmental researchers, consultants, trades unionists, academics and other members of the public in 2001, subsequently opening its doors to investors.

Its objective is to promote SRI and related best practice, in particular by publicly adopting positions. In 2016, it argued in favour of a binding vote on executive pay at general meetings of shareholders, which was later enshrined in the so-called Sapin II Act on transparency, the fight against corruption and the modernisation of the economy.

It organises events such as the responsible finance week, and is a member of the European SRI forum network and, since its creation in 2013, the CSR platform.

**Global Asset Owners Forum**

An attendee at this year’s Global Asset Owners’ Forum, on 14 November 2016 ERFAP formally joined this initiative organised by Japan’s Government Pension Investment Fund (GPIF), the world’s largest pension fund.

This initiative is designed to encourage the exchange of ideas and insights among the world’s largest public pension funds on environmental, social and governance matters, and to share best practice for the alignment of investors’ and asset managers’ interests.

**Climate Risk Impact Screening (CRIS):**

In November 2016, ERFAP helped to fund Carbone 4’s new tool designed to measure the physical risks associated with climate change impacts to which asset portfolios are exposed. Participation in this research partnership will enable ERFAP to position itself as a contributor to an innovative market methodology. This initiative will also help meet financial players’ need to better measure their climate risk exposure, and further develop the Scheme’s approach for complying with the energy transition law, specifically article 173 thereof.

This research partnership will lead to publication of a methodological guide made available to the entire investment community.

### Governance indicators for the sample

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender balance of boards</td>
<td>29%</td>
<td>26%</td>
<td>25%</td>
</tr>
<tr>
<td>Independence of boards</td>
<td>63%</td>
<td>59%</td>
<td>64%</td>
</tr>
<tr>
<td>Average pay of the chief executive (€)</td>
<td>7,088,388</td>
<td>8,522,796</td>
<td>7,349,514</td>
</tr>
</tbody>
</table>

| Resolutions (other than those submitted by shareholders) subject to close review by ERFAP | 245 | 196 | 287 |
| Average adoption rate per GM of resolutions proposed by management | 95.10% | 96.00% | 95.00% |
| Resolutions (other than those submitted by shareholders) rejected by the GM | 0.44% | 0.00% | 0.00% |
| Resolutions (other than those submitted by shareholders) adopted by less than 90% of the votes | 11.00% | 11.50% | 12.80% |
| Resolutions (other than those submitted by shareholders) adopted by less than 70% of the votes | 2.63% | 0.00% | 4.90% |

| Resolutions (other than those submitted by shareholders) subject to close review by ERFAP | 245 | 196 | 287 |
| Average adoption rate per GM of resolutions proposed by management | 95.10% | 96.00% | 95.00% |
| Resolutions (other than those submitted by shareholders) rejected by the GM | 0.44% | 0.00% | 0.00% |
| Resolutions (other than those submitted by shareholders) adopted by less than 90% of the votes | 11.00% | 11.50% | 12.80% |
| Resolutions (other than those submitted by shareholders) adopted by less than 70% of the votes | 2.63% | 0.00% | 4.90% |

### Overall results

| ERAFP votes (excluding shareholders’ resolutions) in favour of the resolution | 43.30% | 58.90% | 62.00% |
| ERAFP votes in favour of a dividend distribution | 42.86% | 54.00% | 33.00% |
| Average adoption rate per GM of resolutions concerning a dividend distribution | 98.80% | 92.50% | 99.50% |
| ERAFP votes in favour of resolutions concerning executives’ remuneration | 0.00% | 0.00% | 10.00% |
| Average adoption rate per GM of resolutions concerning executives’ remuneration | 85.80% | 94.10% | 92.60% |
| ERAFP votes in favour of appointments and/or reappointments of directors | 42.68% | | |
| Average adoption rate per GM of resolutions to appoint and/or reappoint directors | 93.50% | | |

### External resolutions

| Shareholders’ resolutions submitted | 16 | 13 | 4 |
| Shareholders’ resolutions adopted by the GM | 3 | 1 | 0 |
| Shareholders’ resolutions supported by ERFAP | 81% | 85% | 100% |
ERAFP: AN INVESTOR RECOGNISED BY ITS PEERS

ERAFP: winner of the prize for the best ESG report in the small-to-medium size funds category at the fourth Responsible Investor Reporting Awards

This award recognised ERAFP’s excellent record in the disclosure of responsible investment activities and its transparency as regards the consideration of extra-financial criteria in investment decision-making and portfolio management processes.

ERAFP, the leading French investor in the annual rankings of the Asset Owner Disclosure Project (AODP)

In 2016, ERAFP was ranked tenth globally and first in France in AODP’s annual league table, in recognition of its work to combat climate change.

Every year, AODP publishes a ranking of the climate performance of the world’s 500 largest asset owners, including pension funds, insurance funds, sovereign funds, foundations and endowment funds.

ERAFP was therefore selected for this distinction from among the world’s biggest asset managers, for its consideration of carbon risks in its investments and its actions to mitigate them.

ERAFP recognised for its pioneering approach to climate reporting

In 2016, ERAFP was rewarded for its pioneering approach at the inaugural awards ceremony for Best international investor climate reporting, organised by the French Ministry of the Environment, Energy and the Sea. ERAFP’s detailed communication on its best in class SRI approach, which has been part of its operating strategy since inception and applies to all its portfolio asset classes, contributes to the understanding of existing climate risks. This understanding has been supplemented by the use of methodologies providing information on its portfolio’s consistency with a 2°C scenario.

In 2016, ERAFP received numerous awards for its SRI efforts
APPENDICES
HISTORICAL DATA

EMPLOYER ACCOUNTS AND INDIVIDUAL RETIREMENT ACCOUNTS

- Payment incidents
- Fully paid-in employers’ accounts
- Fully-accrued individual accounts

Number and amount of annual lump sum benefit payouts (in millions of euros)

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Pensions</th>
<th>Benefit Payout Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>158,450</td>
<td>230 million</td>
</tr>
<tr>
<td>2012</td>
<td>110,066</td>
<td>223 million</td>
</tr>
<tr>
<td>2013</td>
<td>118,368</td>
<td>289 million</td>
</tr>
<tr>
<td>2014</td>
<td>357,038</td>
<td>305 million</td>
</tr>
<tr>
<td>2015</td>
<td>532,935</td>
<td>268 million</td>
</tr>
<tr>
<td>2016</td>
<td>73,378</td>
<td>283 million</td>
</tr>
</tbody>
</table>

Source — CDC GA

Note: from 2016, only revisions with an impact on rights are recorded.

Number and amount of annual annuity payouts (in millions of euros)

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Annuites</th>
<th>Benefit Payout Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>223 million</td>
<td>223 million</td>
</tr>
<tr>
<td>2012</td>
<td>182,097</td>
<td>182,097</td>
</tr>
<tr>
<td>2013</td>
<td>174,815</td>
<td>174,815</td>
</tr>
<tr>
<td>2014</td>
<td>145,862</td>
<td>145,862</td>
</tr>
<tr>
<td>2015</td>
<td>140,085</td>
<td>140,085</td>
</tr>
<tr>
<td>2016</td>
<td>253 million</td>
<td>253 million</td>
</tr>
</tbody>
</table>

Source — CDC GA

Overall number and amount of annual annuity payouts (in millions of euros)

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Annuites</th>
<th>Benefit Payout Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>158,450</td>
<td>230 million</td>
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<td>268 million</td>
</tr>
<tr>
<td>2016</td>
<td>73,378</td>
<td>283 million</td>
</tr>
</tbody>
</table>

Source — CDC GA

Number of telephone calls handled from employers

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Calls</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>21,173</td>
</tr>
<tr>
<td>2012</td>
<td>16,481</td>
</tr>
<tr>
<td>2013</td>
<td>14,767</td>
</tr>
<tr>
<td>2014</td>
<td>12,203</td>
</tr>
<tr>
<td>2015</td>
<td>12,600</td>
</tr>
<tr>
<td>2016</td>
<td>10,535</td>
</tr>
</tbody>
</table>

Source — CDC GA
### Number of Telephone Calls Handled from Retired Beneficiaries

Source: CDC GA

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Calls</td>
<td>61,018</td>
<td>84,950</td>
<td>91,619</td>
<td>94,362</td>
<td>80,900</td>
<td>80,279</td>
</tr>
</tbody>
</table>

### Number of Telephone Calls Handled from Active Contributors

Source: CDC GA

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Calls</td>
<td>17,867</td>
<td>30,020</td>
<td>29,575</td>
<td>28,073</td>
<td>33,100</td>
<td>30,500</td>
</tr>
</tbody>
</table>

### Number of 'Right to Information' Documents Sent

Source: CDC GA

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documents sent</td>
<td>761,645</td>
<td>990,566</td>
<td>852,338</td>
<td>917,733</td>
</tr>
</tbody>
</table>

### Portfolio Composition (At Amortised Cost in Millions of Euros)

Source: ERAFP

<table>
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<th></th>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
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<td>Sovereign bonds and equivalent</td>
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<td>€0</td>
<td>€0</td>
<td>€0</td>
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<td>Corporate bonds</td>
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<td>€0</td>
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<td>Convertible bonds</td>
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<td>€0</td>
<td>€0</td>
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<td>€0</td>
<td>€0</td>
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<td>Multi-asset funds</td>
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<td>Real estate</td>
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<td>€0</td>
<td>€0</td>
<td>€0</td>
<td>€0</td>
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<td>€0</td>
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<td>€0</td>
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</tr>
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<td>Short-term securities</td>
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<td>€0</td>
<td>€0</td>
<td>€0</td>
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<td>€0</td>
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<td>Term deposits</td>
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<td>€0</td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
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<td>€0</td>
<td>€0</td>
<td>€0</td>
<td>€0</td>
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<td>€0</td>
<td>€0</td>
<td>€0</td>
</tr>
</tbody>
</table>

### Average Yields and Unrealised Capital Gains and Losses on the Bond Portfolio Since 2007

Source: ERAFP

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Net assets at amortised cost at year-end</td>
<td>€2,000 m</td>
<td>€4,000 m</td>
<td>€6,000 m</td>
<td>€8,000 m</td>
<td>€10,000 m</td>
<td>€12,000 m</td>
<td>€14,000 m</td>
<td>€16,000 m</td>
<td>€18,000 m</td>
<td>€20,000 m</td>
<td>€22,000 m</td>
<td>€24,000 m</td>
</tr>
<tr>
<td>Unrealised capital gains or losses</td>
<td>€0</td>
<td>€0</td>
<td>€0</td>
<td>€0</td>
<td>€0</td>
<td>€0</td>
<td>€0</td>
<td>€0</td>
<td>€0</td>
<td>€0</td>
<td>€0</td>
<td>€0</td>
</tr>
<tr>
<td>Average current yield (for 2% inflation)</td>
<td>0.0%</td>
<td>1.0%</td>
<td>2.0%</td>
<td>3.0%</td>
<td>4.0%</td>
<td>5.0%</td>
<td>6.0%</td>
<td>7.0%</td>
<td>8.0%</td>
<td>9.0%</td>
<td>10.0%</td>
<td>11.0%</td>
</tr>
</tbody>
</table>
AVERAGE SRI RATING FOR THE SOVEREIGN AND SIMILAR BOND PORTFOLIO COMPARED WITH THE AVERAGE INDEX RATING

Source — Vigeo

AVERAGE YIELDS AND UNREALISED CAPITAL GAINS AND LOSSES ON THE CONVERTIBLE BOND PORTFOLIO

Source — ERAFP

AVERAGE YIELDS AND UNREALISED CAPITAL GAINS/LOSSES POSTED BY THE EQUITY PORTFOLIO

Source — ERAFP
AVERAGE YIELDS AND UNREALISED CAPITAL GAINS/LOSSES POSTED BY THE REAL ESTATE PORTFOLIO

Source — ERAFP

GREEN SHARE, INTENSITY OF CONTRIBUTION TO THE CLIMATE TRANSITION AND EMISSIONS AVOIDED OF THE CORPORATE BOND AND EQUITY PORTFOLIOS AT 31 DECEMBER 2016

<table>
<thead>
<tr>
<th>Category</th>
<th>Green share</th>
<th>Intensity of contribution to the climate transition</th>
<th>Emissions avoided (TCO₂ₑ/year/€m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregate equities</td>
<td>14</td>
<td>13</td>
<td>242</td>
</tr>
<tr>
<td>European equities</td>
<td>13</td>
<td>14</td>
<td>254</td>
</tr>
<tr>
<td>US equities</td>
<td>42</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Pacific equities</td>
<td>8</td>
<td>10</td>
<td>141</td>
</tr>
<tr>
<td>EUR credit</td>
<td>8</td>
<td>15</td>
<td>761</td>
</tr>
<tr>
<td>USD credit</td>
<td>24</td>
<td>26</td>
<td>372</td>
</tr>
<tr>
<td>Aggregate convertibles</td>
<td>27</td>
<td>16</td>
<td>430</td>
</tr>
</tbody>
</table>

Source — I Care and Consult
## Balance Sheet Assets in Euros

<table>
<thead>
<tr>
<th>ASSETS (€)</th>
<th>31/12/2015</th>
<th>31/12/2014</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GROS</td>
<td>AMORTISATION, DEPRECIATION AND IMPAIRMENT</td>
</tr>
<tr>
<td>I - INVESTMENTS</td>
<td>19,402,725,473.03</td>
<td>-11,564,302.65</td>
</tr>
<tr>
<td>Shares in real estate investment companies</td>
<td>979,926,438.60</td>
<td>-1,229,863.15</td>
</tr>
<tr>
<td>Bonds, negotiable debt instruments and other fixed-income securities</td>
<td>12,032,555,786.29</td>
<td>-4,958,607.52</td>
</tr>
<tr>
<td>Shares and units in UCITS</td>
<td>6,390,243,248.14</td>
<td>-5,375,831.98</td>
</tr>
<tr>
<td>II - ACTIVE CONTRIBUTORS AND BENEFICIARIES</td>
<td>107,251,754.69</td>
<td>-8,598,356.30</td>
</tr>
<tr>
<td>Active contributors and related accounts</td>
<td>47,501,950.96</td>
<td>-3,818,372.00</td>
</tr>
<tr>
<td>Beneficiaries</td>
<td>59,749,803.73</td>
<td>-4,779,984.30</td>
</tr>
<tr>
<td>III - OTHER RECEIVABLES</td>
<td>14,918.43</td>
<td>0.00</td>
</tr>
<tr>
<td>Trade receivables, advances and down-payments</td>
<td>8,184.11</td>
<td>8,184.11</td>
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<tr>
<td>Other receivables</td>
<td>6,734.32</td>
<td>6,734.32</td>
</tr>
<tr>
<td>IV - OTHER ASSETS</td>
<td>281,869,680.86</td>
<td>-63,454.64</td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td>166,205.09</td>
<td>-63,454.64</td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td>281,703,475.77</td>
<td>281,703,475.77</td>
</tr>
<tr>
<td>V - ACCRUALS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL I+II+III+IV+V</td>
<td>19,791,861,827.01</td>
<td>-20,226,113.59</td>
</tr>
</tbody>
</table>

## Balance Sheet Liabilities in Euros

<table>
<thead>
<tr>
<th>LIABILITIES (€)</th>
<th>31/12/2015</th>
<th>31/12/2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>I - EQUITY</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>II - SCHEME RESERVES</td>
<td>17,491,428,787.04</td>
<td>15,860,848,513.10</td>
</tr>
<tr>
<td>Accruing rights</td>
<td>16,940,962,337.25</td>
<td>15,470,802,069.31</td>
</tr>
<tr>
<td>Rights being exercised</td>
<td>556,466,449.79</td>
<td>390,046,443.79</td>
</tr>
<tr>
<td>III - NON-TECHNICAL RESERVES</td>
<td>2,263,214,355.35</td>
<td>1,658,666,167.00</td>
</tr>
<tr>
<td>Reserves for use of surpluses</td>
<td>2,263,048,206.28</td>
<td>1,658,533,201.26</td>
</tr>
<tr>
<td>Reserves for time-savings accounts</td>
<td>166,149.07</td>
<td>122,955.74</td>
</tr>
<tr>
<td>IV - ACTIVE CONTRIBUTORS AND BENEFICIARIES</td>
<td>2,918,927.06</td>
<td>2,868,022.56</td>
</tr>
<tr>
<td>Active contributors</td>
<td>525,636.33</td>
<td>507,912.42</td>
</tr>
<tr>
<td>Beneficiaries and related accounts</td>
<td>2,393,290.73</td>
<td>2,360,110.14</td>
</tr>
<tr>
<td>V - OTHER LIABILITIES</td>
<td>8,073,643.97</td>
<td>8,900,072.26</td>
</tr>
<tr>
<td>Trade and other payables</td>
<td>7,952,506.72</td>
<td>8,766,845.72</td>
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<tr>
<td>Staff and related accounts</td>
<td>11,943.56</td>
<td>6,372.04</td>
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<tr>
<td>Social security and other employment benefits</td>
<td>55,787.66</td>
<td>89,507.91</td>
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<tr>
<td>State – taxes and duties</td>
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<td>0.00</td>
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<tr>
<td>Other creditors</td>
<td>53,406.03</td>
<td>37,346.56</td>
</tr>
<tr>
<td>VI - ACCRUALS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL I+II+III+IV+V+VI</td>
<td>19,771,635,713.42</td>
<td>17,531,282,764.92</td>
</tr>
<tr>
<td>€</td>
<td>31/12/2015</td>
<td>31/12/2014</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td><strong>INCOME STATEMENT</strong></td>
<td></td>
<td></td>
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<tr>
<td>Contributions</td>
<td>1,827,623,941.75</td>
<td>1,839,843,576.23</td>
</tr>
<tr>
<td>Change in impairment on contributions</td>
<td>462,155.22</td>
<td>122,605.56</td>
</tr>
<tr>
<td>Late-paid penalties</td>
<td>52,791.25</td>
<td>164,999.35</td>
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<tr>
<td>Other technical income</td>
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<td>0.00</td>
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<tr>
<td><strong>TECHNICAL INCOME</strong></td>
<td>1,828,138,888.22</td>
<td>1,840,131,181.14</td>
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<td>Investment income</td>
<td>427,348,793.24</td>
<td>417,049,663.52</td>
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<tr>
<td>Income from realisation of investments</td>
<td>299,533,594.27</td>
<td>198,215,915.27</td>
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<tr>
<td>Other investment income</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Reversal of impairment on investments</td>
<td>4,634,521.97</td>
<td>837,523.26</td>
</tr>
<tr>
<td><strong>GROSS INVESTMENT INCOME</strong></td>
<td>755,553,947.00</td>
<td>639,434,660.19</td>
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<tr>
<td>Expenses related to realisation of investments</td>
<td>-3,179,306.90</td>
<td>-181,450.90</td>
</tr>
<tr>
<td>Other investment expenses</td>
<td>-44,889,368.10</td>
<td>-42,000,985.47</td>
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<tr>
<td>Impairment charges on investments</td>
<td>-11,428,321.29</td>
<td>-3,832,025.48</td>
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<tr>
<td><strong>INVESTMENT EXPENSES</strong></td>
<td>-59,496,996.29</td>
<td>-59,496,996.29</td>
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<tr>
<td><strong>NET FINANCIAL INCOME</strong></td>
<td>696,056,950.71</td>
<td>593,420,198.34</td>
</tr>
<tr>
<td>Benefits paid</td>
<td>-253,733,969.12</td>
<td>-290,770,275.07</td>
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<tr>
<td>Changes in impairment on benefits</td>
<td>-1,124,197.47</td>
<td>-1,029,115.41</td>
</tr>
<tr>
<td>Other benefits (discounts of bonus factors)</td>
<td>-91,045.10</td>
<td>-137,054.41</td>
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<tr>
<td><strong>BENEFITS</strong></td>
<td>-254,959,211.19</td>
<td>-291,936,495.92</td>
</tr>
<tr>
<td>Changes in Scheme reserves</td>
<td>-2,240,059,595.32</td>
<td>-2,214,320,336.44</td>
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<tr>
<td><strong>TECHNICAL EXPENSES</strong></td>
<td>-2,496,034,807.31</td>
<td>-2,406,256,831.36</td>
</tr>
<tr>
<td><strong>SCHEME'S NET CURRENT INCOME</strong></td>
<td>28,161,031.62</td>
<td>27,294,548.12</td>
</tr>
<tr>
<td>Non-technical income</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Reversals of amortisation, depreciation and impairment</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>OTHER NON-TECHNICAL INCOME</strong></td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Overall outsourcing of administrative</td>
<td>-14,299,500.39</td>
<td>-14,244,962.02</td>
</tr>
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<td>Third-party investment management</td>
<td>-1,689,221.24</td>
<td>-1,807,633.33</td>
</tr>
<tr>
<td>Personnel expenses</td>
<td>-4,461,485.52</td>
<td>-4,057,200.54</td>
</tr>
<tr>
<td>Other expenses</td>
<td>-7,471,648.81</td>
<td>-7,903,149.31</td>
</tr>
<tr>
<td>Provision and depreciation charges</td>
<td>-62,791.14</td>
<td>-58,416.38</td>
</tr>
<tr>
<td><strong>OPERATING EXPENSES</strong></td>
<td>-28,134,598.10</td>
<td>-27,271,324.58</td>
</tr>
<tr>
<td>Non-recurring income</td>
<td>0.00</td>
<td>54.06</td>
</tr>
<tr>
<td>Non-recurring expense</td>
<td>-26,433.52</td>
<td>-23,277.60</td>
</tr>
<tr>
<td><strong>NET NON-RECURRING INCOME (EXPENSE)</strong></td>
<td>-26,433.52</td>
<td>-23,223.54</td>
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<tr>
<td><strong>INCOME TAX</strong></td>
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</tr>
<tr>
<td><strong>NET INCOME</strong></td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

**ÉTABLISSEMENT DE RETRAITE ADDITIONNELLE DE LA FONCTION PUBLIQUE (ERAFP)**

**INDEPENDENT AUDITORS' REPORT ON THE ANNUAL FINANCIAL STATEMENTS**

**ERAFP**

Financial year ended 31 December 2015

To the Members of the Board,

Under the terms of our appointment by your Board of Directors, we herewith present our report on the financial year ended 31 December 2015 on:

- our audit of the annual financial statements of ERAFP, as appended to this report;
- the basis for our opinion;
- the specific verifications and information required by law.

The Board of Directors has approved the annual financial statements. It is our responsibility to express an opinion on these financial statements based on our audit.

1. Opinion on the annual financial statements

We carried out our audit in accordance with generally accepted auditing standards in France. Those standards require that we plan and perform the audit to obtain reasonable assurance as to whether the financial statements are free of material misstatement. An audit includes examining, using sampling techniques or based on other selection methods, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used, any significant estimates made and the overall presentation of the financial statements. We believe that our audit provides an adequate and appropriate basis for our opinion.

In our opinion, based on French accounting rules and principles, the financial statements give a true and fair view of the results of operations for the past financial year and ERAFP’s financial position and assets and liabilities at the end of that financial year.
2. Basis for our opinion

Pursuant to Article L.823-9 of the French Commercial Code with regard to the basis for our opinion, we wish to draw your attention to the following items:

- Certain technical liability accounts of your Scheme, particularly reserves and provisions, are estimated on the basis of statistics and actuarial figures in accordance with the applicable regulations, as explained in Note 3.3.3 “Benefits and provisions under the regime” in the Notes to the Financial Statements.

We have reviewed the valuation assumptions and methods used in preparing these financial statements and, based upon the available information, have conducted tests to check the application of said methods and the consistency of these assumptions within the framework of the Scheme’s experience and economic and regulatory environment. We have further examined the appropriateness of the information provided in the Notes to the Financial Statements.

- The financial assets are recognised and valued in accordance with the method set out in Note 3.3.4 “Investments” in the Notes to the Financial Statements. We have reviewed the valuation methods used for these assets and, based upon currently available information, have carried out tests to check their application.

Our review has enabled us to determine that the methods used are adequate and correctly applied and that the information in the Notes to the Financial Statements is relevant and appropriate.

This review is part of our audit of the overall annual financial statements and has therefore helped form our audit opinion, as stated in the first part of this report.

3. Specific verifications and information

In accordance with the professional standards applicable in France, we have also carried out the specific verifications provided for by law.

We have no comment to make on the accuracy or consistency with the annual financial statements of the information given in the Board of Directors’ management report.

Paris and Paris La Défense, 28 June 2016

The Statutory Auditors

Mazars

Tuillet Audit

French Member of Grant Thornton

Pascal Parant
Partner

Brigitte Vaira-Bettencourt
Partner
these impacts.

company integrates social, environmental and economic impacts in its decision-making mechanisms and strives to minimise and in its decision-making mechanisms and strives to minimise these impacts.

The concept of corporate social responsibility corresponds to the implementation of sustainable development practices at the company level. A socially responsible company integrates social, environmental and economic impacts in its decision-making mechanisms and strives to minimise these impacts.

Funded scheme
A funded retirement scheme invests the paid-in contributions in financial assets, which are liquidated at the time of retirement to pay the accrued rights either as an annuity or in a lump sum. The payment depends on both the amount saved and changes in the value of the assets (typically equities and bonds) in which the funds were invested.

The RIS includes information on the beneficiary’s entire career, coverage periods and vested points. It can be prepared at the beneficiary’s request.

Intergenerational equity
This concept aims to ensure an equivalent standard of living amongst individuals at a given point in time and relative to other generations at the same ages.

Life expectancy tables
The TGF05 and TGH05 tables are forward-looking generational life expectancy tables. For each birth year, a life expectancy table is constructed, which allows increasing life expectancy to be taken into account. All the tables have been drawn up based on an analysis of annuity holders’ life expectancy performed by their respective insurance companies using data from INSEE. Two sets of tables have been drawn up: one for women (TGF05) and one for men (TGH05).

The life expectancy tables applied up to the end of 2006 had been drawn up in 1993. They were also forward-looking but had been constructed based solely on the life expectancy of French women. The change of tables was required by the increase in life expectancy, which has on the whole been stronger than anticipated in 1993.

Liquidation
Set of procedures aimed at calculating and paying out benefits to a beneficiary.

Marketable security
Security traded on the financial markets and evidencing a negotiable, associated claim or right (equities, bonds, etc.).

Glossary

Benchmark index
An index that is representative of the market(s) in which the fund is invested.

Best in class
Approach used in socially responsible investing that consists of selecting those issuers considered to be the most responsible within a group of comparable issuers. For equities, this approach means not excluding any single business sector automatically, but favouring the companies in each business sector that have made the most progress as regards environmental, social and governance criteria.

Bond
A bond is a security evidencing a debt, issued by a State or a company, and corresponding to a long-term loan. The bondholder receives income, also known as the coupon.

Capitalisation rate
Interest rate that enables an amount invested at this rate to reach a higher amount over a given time period.

CSR
The concept of corporate social responsibility corresponds to the implementation of sustainable development practices at the company level. A socially responsible company integrates social, environmental and economic impacts in its decision-making mechanisms and strives to minimise these impacts.
Point
Unit for calculating the pension in certain schemes. The contributions make it possible to acquire (vest) points. The amount of the pension is equal to the points acquired during the beneficiary’s professional life, multiplied by the value of a point at the time of retirement. Most additional pension schemes are based on points systems. Basic pension schemes tend to use the ‘quarter’ system.

Premium
Premium applied to the amount of the future pension of a policyholder who has reached the legal retirement age but chooses to continue working, even though he or she has satisfied the coverage period needed to receive a full pension.

PRI
Principles for Responsible Investment, a charter drafted under the auspices of the United Nations and to which ERAFP adheres.

Share
Negotiable security that gives its owner fractional ownership of a company and certain rights: to oversee and control management, and to receive a share of the distributed profit (dividend).

SRI
Socially responsible investing is an approach aimed at integrating environmental, social and/or governance criteria in investment decisions and portfolio management.

Sustainable development
The Brundtland Report, published in 1987 by the UN World Commission on the Environment and Development, defined sustainable development as ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs.’

Return
Ratio of the pension amounts received over the course of retirement to the contribution amounts paid in during the beneficiary’s active working life. Technical return: ratio of the service value of a point to the purchase value of a point.

Reversion
Attribution to a deceased beneficiary’s spouse (prior to or after the beneficiary’s retirement) of a portion of the pension. The reversionary pension is based on the resources of the surviving spouse in the French general scheme for employees (régime général des salariés) and ancillary schemes.

UCI (undertaking for collective investment)
Term generally used to refer to a vehicle for the collective ownership of financial assets.
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