PUBLIC REPORT

RAFP
Retraite additionnelle de la Fonction publique

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 though 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 2004-569 of 18 June 2004 on the French Public Service Additional Pension Scheme
- Order of 26 November 2004 implementing decree 2004-569 of 18 June 2004 on the French Public Service Additional Pension Scheme.

KEY FIGURES 2018

A stock market capitalisation net asset value of

€29.6 billion

at 31 December

An annualised internal rate of return on investments of

4.8%

since the creation of RAFP (-3.7% in 2018)

Benefits:

€402 million

Contributions:

€1.92 billion

4.5 million

active contributors

CONTENTS

56

Part 3

SRI policy: fine-tuning the steering of climate challenges

108

Part 4

Appendices

Thanks to its proprietary steering mechanism, this year the board of directors was once again able to maintain the purchasing power of RAFP benefits, increasing the service value of a point by 1.6% on 1 January 2019, in line with 2018 inflation.

DOMINIQUE LAMIOT

Chairman of ERAFP

After the years of limited inflation that followed the financial and economic crisis, price increases are now approaching the European Central Bank's medium-term objective. It is therefore significant that, without exceeding the limits it has set itself, ERAFP can continue to increase the value of its commitments over a 40-year horizon.

"Thanks to its proprietary steering mechanism, this year the board of directors was once again able to maintain the purchasing power of RAFP benefits, increasing the service value of a point by 1.6% on 1 January 2019, in line with 2018 inflation."

This is due to its model's robustness and adaptability in a context of persistently low interest rates and a significant fall in equity markets in the second half of the year. Thanks to the work that the board carried out in 2018, it was able to update its technical parameters to precisely assess the risk of a decrease in bond yields based on the levels at which they have stabilised and in keeping with the Scheme's liabilities. We also reaped the rewards of steady improvements in operational risk management – particularly for the calculation of commitments – and in control of the Scheme's management costs.

Beyond the Scheme's prudential credentials, it is my belief that this solidity – unflagging since the implementation of our prudential steering charter in 2013 – goes hand in hand with the pioneering socially responsible investment (SRI) approach taken by the Scheme since its creation. The board of directors has shown over these years that factoring in the social and environmental impact of investments does not come at the cost of lower returns for its beneficiaries – quite the contrary.

Following this logic, a responsible investor should be able to help finance economic development that protects the environment and meets social needs; such concerns are central to ongoing work to implement the UN's 2030 Sustainable Development Goals, for example. At a more local level, I am proud to say that we have increased the share of residential real estate in ERAFP's asset portfolio, which will make it possible to build on our recent efforts to facilitate the housing of public sector employees hard pushed to find homes in areas where rents are excessive in relation to their income. It is a fairly modest response for the time being, but one consistent with ERAFP's mission to serve public servants.

With around 150,000 retired beneficiaries at the end of 2018, almost half as many again as at the beginning of the year, ERAFP is now a fully-fledged pension scheme. Its direct relationship with its beneficiaries gives it greater responsibility.

With a higher profile than a few years ago, as demonstrated by a recent contributor survey, ERAFP is seen as a trusted institution that manages the Scheme efficiently. With this success comes an obligation for future years and, through the mandate that ministers have entrusted to me, I will work with ERAFP's teams to meet the related expectations.

The Scheme already has much in its favour, with – financially speaking – a solid performance over time and considerable clout. Its ratio of economic coverage of commitments at the end of 2018 (116% after the revaluation of points) bears witness to this. Moreover, since its creation the Scheme has generated an annualised internal rate of return (IRR) of 4.8% in stock market value terms. Despite a negative performance in 2018 (-3.7%) due to market turbulence in the autumn, the annualised IRR over the last five years remains at a satisfactory level of 4.2%.

We are continuing to gradually diversify the allocation of our portfolio – which has now reached €30 billion in stock market value – into assets such as equities, real estate, private equity and infrastructures, which can provide a balanced long-term return that fits with our commitments but also contribute more to the financing of the economy. For all these assets, we are rolling out and stepping up ERAFP's SRI approach, which is at the core of what we do and earns us regular commendation. This year the IPE named us best French pension fund, with the best emerging markets investment strategy – and also singled us out for the transparency of our financial communication. Once again, in this area we need to continue on the path to excellence, and the new tools that we are in the process of acquiring to manage both SRI and carbon impact will serve that cause.

This report reviews the main actions carried out in these various areas over the past year, the administrative management activities we have carried out for Caisse des Dépôts and our relations with other stakeholders.

"With around 150,000 retired beneficiaries at the end of 2018, almost half as many again as at the beginning of the year, ERAFP is now a fully-fledged pension scheme. Its direct relationship with its beneficiaries gives it greater responsibility."

LAURENT GALZY

CEO of ERAFP

2018 HIGHLIGHTS

12 October 2018

ERAFP ACQUIRES A STAKE IN A HOUSING PORTFOLIO SOLD BY SNCF

On behalf of a consortium of which ERAFP is the leading investor, Ampère Gestion (CDC Habitat subsidiary) and Swiss Life AM RE France acquired a portfolio of 4,000 housing units from a subsidiary of the SNCF group, which retained 20% of the property company.

› page 40

27 November 2018

ERAFP JOINS ADEME AND CDP IN THE ACT INITIATIVE

The engagement charter signed by ERAFP and other financial institutions aims to promote a method for companies to assess their strategy's compatibility with the objective of limiting global warming to 2°C.

› page 106

1 December 2018

ERAFP'S NEW CHIEF EXECUTIVE OFFICER APPOINTED

On 19 November 2018, Laurent Galzy was appointed ERAFP's CEO for a period of four years with effect from 1 December 2018, **pursuant to a joint order by the Minister for Solidarity and Health, the Minister for the Economy and Finance and the Minister for Public Action and Accounts.**

› page 8

4 December 2018

ERAFP VOTED BEST FRENCH PENSION FUND AT THE IPE AWARDS

ERAFP made its mark at the 18th annual IPE Awards, winning prizes for best French pension fund and best emerging markets investment strategy – recognition underscoring the quality of its approach as a 100% SRI long-term investor.

› page 106

6 December 2018

ERAFP RECEIVES AN AWARD FOR THE TRANSPARENCY OF ITS FINANCIAL COMMUNICATION

At the Couronnes Instit Invest awards, ERAFP won plaudits for its approach to institutional communication and beneficiary relations.

› page 60

12 December 2018

ADDITIONAL ROOM FOR MANOEUVRE TO INVEST IN THE ECONOMY

Pursuant to the government's policy of promoting SME financing, the order of 26 November 2018 raised the ceiling on unlisted private equity and infrastructure assets in which ERAFP can invest, from 3% to 5% of its assets.

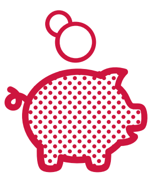
› page 95

NB.: see page 30 of this report for financial tender launches and mandate awards.

1

OPERATION OF THE SCHEME IN 2018

A UNIQUE SCHEME, OPERATIONAL SINCE 2005



4.5 million

Scheme contributors will receive additional pension benefits

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 those of some 44,000 public sector employers. Contributions totalled €1.92 billion in 2018.

› 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 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 companies, and alongside 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

In 2018 – three years into its mandate – the board continued to work at a steady pace.

NEW APPOINTMENTS TO THE BOARD OF DIRECTORS

› Pursuant to the order of 24 April 2018, **Christophe Landour** was appointed a full member of the board of directors, replacing Mylène Orange-Louboutin.

› Pursuant to the order of 24 April 2018, **Emmanuel Brossier** was appointed an alternate member of the board of directors, replacing Coralie Oudot.

› **Pursuant to the decree of 23 March 2018, Marcel Lecaudey was appointed vice-chairman of the French Public Service Additional Pension Scheme.**

MAIN DECISIONS ADOPTED IN 2018

› At its meeting of 29 March 2018, the board of directors decided to change the Scheme's strategic allocation for 2018, raising the maximum proportion of real estate assets, initially set at 10.5%, to 11.3%.

› Pursuant to a decision of 28 June 2018, the board of directors reaffirmed its commitment to initiatives to facilitate the housing of public sector employees.

› Pursuant to a decision of 18 December 2018 and in application of the Scheme's technical parameter drafting guidelines, the board of directors made a symmetrical 1.6% increase to the purchase value and the service value of a point[1].

› Also on 18 December 2018, the board of directors adopted the following investment policy orientations for 2019:

- a further downsizing of ERAFP's bond portfolio from 57% to 54% of its assets, with priority for new investments given to corporate bonds, including those issued in emerging countries;
- an increase from 32% to 33%-34% in the variable-income asset portfolio, including an increase from 1.2% to 1.7% for private equity and infrastructure funds;
- the continued ramp-up of real estate investments, with the portfolio expected to increase from 10% of assets to 11.5%-12%.

1. The rationale and application methodology for this decision are detailed in section 2 of this report (p.32).

WORK BY THE BOARD'S BODIES IN 2018

ERAFP's board of directors met four times in 2018.

The board's sub-committees met 26 times in all during the year. Directors also took part in three training days on a range of topics covering compliance approach and rules, preventing conflicts of interest and measuring investments' social and environmental impact. Lastly, a study seminar brought together board members and ERAFP employees to discuss long-term value creation, with the participation of economists and representatives from France Stratégie.

The above events reflect the directors' continuous involvement in the Scheme's activities.

FIND OUT MORE

Scheme governance

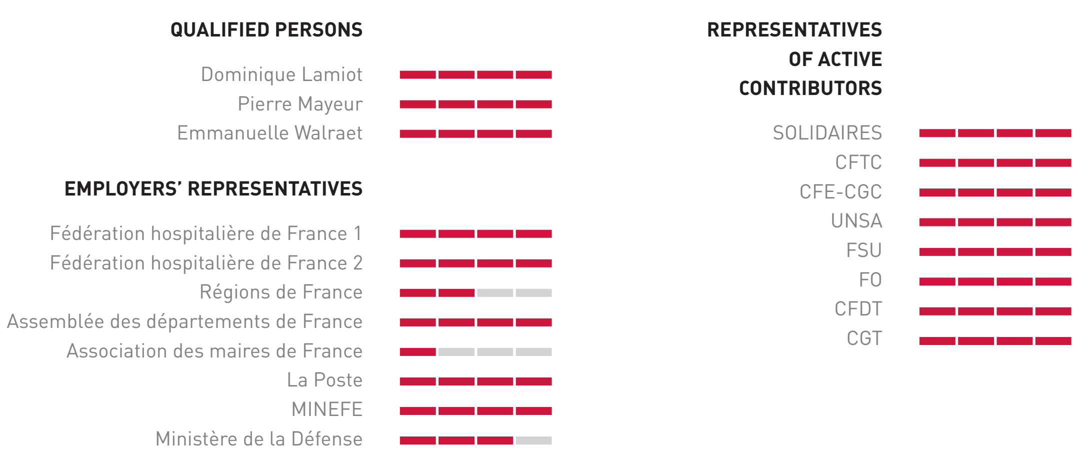
BOARD OF DIRECTORS' 'LONG-TERM VALUE CREATION' STUDY DAY

"How can investors finance production models that generate wealth stably and sustainably?". The speakers used this question as a basis for discussions with ERAFP's board members and employees on various forward-looking analyses relating to investors' role in financing the economy:

- How can we develop tools to promote the environment (notably through carbon-related 'lessons') that are adapted to an ecological production model and support the energy transition? How can these tools lead to decision-making processes that mitigate against short-term interests?
- What are the challenges in ensuring that European food systems are sustainable and transparent for consumers and balance productivity and long-term land fertility?
- How should investors take into account the negative externalities of economic activities? How practical are the new wealth indicators that take into account social and environmental costs?

ATTENDANCE AT BOARD MEETINGS IN 2018

Source: ERAFP



PART 1.

› WORK OF THE CSAP

In an economic and financial environment that was unfavourable both because interest rates remained very low and the stock markets were turbulent, as inflation returned, we maintained our investment orientations based on a long-term approach. Following discussions with the supervisory authorities, we were able to raise the regulatory ceiling for private equity and infrastructure investments, which will enable ERAFP to continue to scale up its investments in these asset classes in the coming years.

However, discussions must continue to ensure that the Scheme can respond rapidly to a constantly changing environment and has the flexibility to take part in sector-wide projects and seize market opportunities. ERAFP's modelling work was very informative, showing that the fit of the investment regulatory framework with the characteristics of an investor such as ERAFP must be assessed from a structural point of view, regardless of where we are in the economic cycle.

Our talks also led us to update the discount rate formula, while avoiding setting the parameters in stone. The work undertaken to develop mortality tables specific to RAFP is expected to clarify certain aspects of our knowledge of the Scheme's demographics.

ÉRIC POGLIO,
chair of the asset and liability management committee

› WORK OF THE CSA

The necessary updating of the board of directors' internal rules was the subject of intense debate; a group effort made it possible to shape regulatory provisions to suit ERAFP's specific characteristics and led to ratification of the principle of equal access to information for ERAFP's various stakeholders, whether part of its highly diverse board, its management or its supervisory bodies.

The 2018 budget having only been approved at the beginning of the year, the 2019 budget review provided the opportunity for further discussion of the Scheme's spending freedom relative to the State budget. Although ERAFP duly meets the objective of reducing operating expenses by 1.5% per year on its own scope, several committee members stressed how restrictive this effort was for a small entity that is tasked with a steering remit and has little scope for making economies of scale.

The work on mandate agreements with Caisse des Dépôts et Consignations (CDC) and the State Pensions Service (SRE) continued, without being completed by the end of the year. The audit committee reiterated its wish that, while the two agreements cover different scopes and involve separate control mechanisms and responsibilities, they should be drawn up in tandem.

Finally, against the backdrop of the Union Retraite public interest group's implementation of a number of structural projects to not only inform contributors and pensioners but also manage retirement requests, the committee approved a substantial increase in ERAFP's contribution to that organisation, reflecting the additional pension scheme's growth. At the same time, the committee members expressed a desire for greater representation of ERAFP on Union Retraite's committees.

FRANCIS SAHAL,
chair of the audit committee

› WORK OF THE CSR

In recent years, the committee has noted the difficulties caused by situations where a lump sum is converted into an annuity, which results in the heir of a Scheme beneficiary having to repay RAFP a debt.

Such difficulties can now be avoided thanks in particular to the publication on 9 October of a decree allowing, among other things, the split payment of the lump sum above a certain threshold of points to be set by the board. This system, designed by the committee and proposed by the board to the supervisory authorities, makes it possible to limit the amount paid to beneficiaries whose benefit presents a lump sum-to-annuity switch risk until the administrative manager has sufficient information to pay an additional lump sum or, conversely, to initiate annuity payment. This system came into force on 1 May 2019.

We will monitor it closely pending a possible review in the context of the deployment of France's consolidated electronic reporting system for employers (*déclaration sociale nominative*), which will take place gradually, the deadline being set for 1 January 2022. The main challenge for employers, especially the smallest companies, will be the changeover procedures and, in particular, the financing of software adapted to monthly reporting. In general, the committee will remain attentive to regulatory changes affecting contribution procedures.

STEVE MAZENS,
chair of the collections committee

› WORK OF THE CSR

We had the opportunity in 2018 to reflect on several areas of interest for ERAFP's SRI policy, including those relevant to the training already provided to directors. Climate, public health and sustainable development goals are just some of the multiple topics concerning socially responsible investors today. While remaining attentive to these challenges, our approach involves first taking the time to reflect and then undertaking initiatives that are consistent with the unique SRI approach that our board of directors has developed year after year.

This has enabled us to draw initial lessons from the development of the corporate SRI reference framework and intensify our monitoring both of companies excluded on account of their rating and, in the same vein, our delegated asset managers' engagement. All of this has strengthened our belief that ERAFP's SRI policy continues to be sound and that its procedures, rather than its principles, need to be adapted over time.

PHILIPPE LAURENT,
chair of the investment policy monitoring committee

2018, 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 million contributors in 2018.

—

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, capped at 20% of gross basic salary.

—

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

FIND OUT MORE

How are contributions calculated?

THE RAFP BENEFIT RIGHTS VESTING SYSTEM

› Legal and regulatory developments in 2018

Decree 2017-1889 of 30 December 2017 instigating, effective 1 January 2018, compensation for the increase in the general social contribution (CSG) in the civil service.

Decree 2018-821 of 27 September 2018 amending articles 2 and 4 of decree 2004-569 of 18 June 2004 by replacing the wording "elements of remuneration of any kind that beneficiaries received from their employers in the calendar year mentioned in article L. 136-2" in the definition of the Scheme's basis by "income from activities due in the calendar year as taken into account to determine the contribution basis provided for in article L. 136-1". This does not change the basis, which remains constant.

Decree 2018-873 of 9 October 2018 on certain public service additional pension calculation and payment methods stipulates the following:

- article 8 of the decree of 18 June 2004 is supplemented by a provision specifying that the annuity be paid in arrears. This provision was already applicable and provided for in article 11 of the order of 26 November 2004, which has now been repealed;
- article 9 of the decree of 18 June 2004 is supplemented by a paragraph providing for the possibility for ERAFP's board of directors to introduce the split lump sum payment of public service additional pension benefits. It also incorporates the provisions previously laid down in article 12 of the order of 26 November 2004 relating to payment of a lump sum below 5,125 points, which is now expressed directly in points.

The order of 26 November 2018 amending the order of 26 November 2004 implementing decree 2004-569 of 18 June 2004 on the French Public Service Additional Pension Scheme. Article 2 of this order specifies that, by way of derogation until 31 December 2019, employers must pay the contributions due in respect of the daily temporary absence allowance for State security services employees on an annual rather than a monthly basis.

The order of 28 November 2018 amending the order of 28 August 2009 implementing decree 2002-634 of 29 April 2002, amended, regarding the creation of a time savings account in central public service and judiciary bodies. This modifies the functioning of the time savings account (CET) in the central public service[2] as follows:

- the threshold for exclusive use for leave is now lowered from 20 to 15 days;
- **from 1 January 2019,** the fixed amounts set by statutory category are increased by €10.

Article 7 of the 2019 social security financing act and article 2 of act 2018-1213 of 24 December 2018 implementing emergency economic and social measures stipulate exemption from old-age insurance salary contributions[3] for overtime worked from 1 January 2019. These provisions do not have any consequences for the Scheme's basis as the exemption applies to the basic scheme.

› Parameters defined by the board of directors

€1.2123

purchase value of a point in 2018

€0.04532

service value of a point in 2018

2. Decree 2018-1305 reduces the threshold to 15 days for the regional public service. The decree of 26 August 2004 on the time savings account in the regional public service sets the fixed amounts by reference to the texts relating to the central public service. Consequently, these new amounts will also apply to the regional public service. The implementing texts for the public hospital segment have yet to be published.

3. Decree 2019-133 of 25 February 2019 on implementation for public sector workers was published in the *Journal Officiel* on 27 February 2019.

TYPICAL BENEFITS PAYMENT SIMULATIONS[4]

LUMP SUM PAYMENT	ANNUITY PAYMENT	
Sarah, an administrative assistant, retires in 2018 aged 62	**Georges**, an attaché, retires in 2018 aged 62	**Anne**, an attaché, retires in 2018 aged 67
She then has **4,500 points** in her individual RAFP account (< 5,125 points)	He then has **7,000 points** in his individual RAFP account (> 5,125 points)	She then has **7,000 points** in her individual RAFP account (> 5,125 points)
4,500 x 0.04532[5] x 24.62[6] x 1.00[7]	7,000 x 0.04532[5] x 1.00[6]	7,000 x 0.04532[5] x 1.22[6]
€5,021 gross	**€317.24 gross**	**€387.03 gross**
Sarah will receive a gross lump sum of €5,021. If the number of points in the individual account is revised, this may give rise to an additional lump sum payment or to the switch to an annuity.	**Georges receives a gross annuity of €317.24 annually, or €26.44 monthly.** This amount will be revalued each year in line with the service value of a point.	**Anne receives a gross annuity of €387.03 annually, or €32.25 monthly.** This amount will be revalued each year in line with the service value of a point.

FIND OUT MORE

Benefits simulator

4. Illustrative examples, not contractual and given for indicative purposes only.
5. Service value of a point in 2018.
6. Lump sum conversion factor corresponding to life expectancy at the age when the pension is paid.
7. Premium factor: after age 62, the higher the retirement age, the greater the factor.

CONTRIBUTIONS AND BENEFITS IN 2018

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 the French Public Service Additional Pension Scheme. Caisse des Dépôts is responsible for the following tasks under the authority and supervision of the board of directors: collection of contributions, maintenance of individual retirement accounts, liquidation of rights, payment of benefits[8] and 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.

Approximately 44,000 employers paid contributions to Caisse des Dépôts in respect of the Scheme in 2018.

€1.92 billion in contributions collected in respect of the 2018 financial year.

4.5 million active contributors in 2018.

154,000 pension liquidations and 78,000 individual RAFP account revisions carried out in 2018.

€402 million in payment orders issued in respect of benefits.

Approximately 148,000 annuities in payment.

AROUND 44,000 EMPLOYERS...

Approximately 44,000 employers paid contributions to Caisse des Dépôts in respect of the Scheme in 2018. The vast majority are local and regional authorities and public sector hospitals.

French central government employers registered with the Scheme mainly comprise regional public finance departments, ministries and commissioners to the armies. Note that 97.5% of employers had fully paid up their accounts for 2017[9] by the end of 2018.

Having remained stable below 5% for a number of years, the rate of payment anomalies decreased in 2018 due in particular to an improving situation reflecting the recent restructuring of regional and local authorities and the administrative manager's support. The average rate for the year was 3.8%, compared with 5% in 2017.

These payment incidents are subject to corrective actions, with 98.1% of incidents arising in 2018 settled during the year.

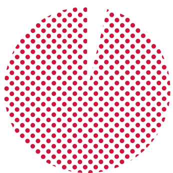
8. Except for the payment of benefits to retired central government public servants, which is the responsibility of the Directorate of Public Finance.

9. NB.: As the employers' declarations are only required to be submitted in the year following payment of contributions, the figures correspond to the 2017 financial year.

... AROUND €1.92 BILLION COLLECTED...

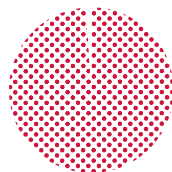
The Scheme collected around €1.92 billion of contributions in 2018. Employers with at least ten contributing employees pay contributions on a monthly, aggregate basis. Those with fewer than ten contributing employees pay contributions annually.

A penalty is added to the contribution in the event of late payment. In 2018, 601 employers were subject to late payment penalties in respect of 2017.



97.5%
of employers' accounts fully paid up

3.8%
rate of payment incidents, of which 98.1% settled



99.5%
of individual contributors' accounts updated at 31 December 2018

... AND 4.5 MILLION CONTRIBUTING PUBLIC SERVANTS IN 2018

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 in 2017 was 31 March 2018. Provided the amounts reported matched the contributions received, the contributors' individual retirement accounts were updated after that date.

Working closely with the supervisory authority, ERAFP and Caisse des Dépôts have implemented actions to raise awareness among employers of their regulatory obligations and their employees' rights.

Caisse des Dépôts contacts employers, by telephone or in writing, whenever a discrepancy is observed between the reported amount and the amount received.

The very high update rates for contributors' accounts since 2009 (almost 99% on average) is indicative of an increased awareness and understanding of the Scheme, which is helped by Caisse des Dépôts' actions to raise awareness among employers.

While the number of updated individual retirement accounts edged down in 2018, at 31 December the update rate stood at 99.5%.

154,000
pension liquidations in 2018

78,000
benefits revisions

€402 million
in benefit payment orders issued in 2018, of which €46 million for annuities and €355 million for lump sums

Average lump sum of
€3,329
and average annuity of €346

See tables in the appendix showing changes since 2013.

CLOSE TO 154,000 PENSION LIQUIDATIONS AND 78,000 BENEFITS REVISIONS IN 2018

Around 154,000 pensions were liquidated and 78,000 benefits were revised[10] in 2018. The increase in the number of liquidations (+9%) is likely attributable to the end of the increase in the legal retirement age, the impact of which on the number of people taking retirement is expected to have peaked in 2018[11].

The significant increase in the number of revisions (+20%) is mainly due to the increase in central public service functions (+36% vs. 2% for the other public service functions).

In all, €402 million in benefit payment orders were issued in 2018. This amount includes reversionary benefits paid out to partners and children under 21 of deceased beneficiaries.

PAYOUTS INCREASING

In 2018, payouts increased by 9%, a slightly faster rate of increase than that of pension liquidations. There was a less marked increase in the number of lump sum payments (150,751 in 2018 compared with 147,904 in 2017). The average lump sum payment in 2018 was €3,329, up by 5% from 2017 (€3,182)[12].

ANNUITY PAYMENTS TAKE OFF

147,762 annuities were paid in 2018. The continued increase in the number of annuities compared with lump sum payments mirrors the Scheme's gradual growth since its inception in 2005.

Every year, there are increasing numbers of beneficiaries who have accrued throughout their careers a total number of points in excess of the minimum 5,125 necessary to receive an annuity. The average annuity in 2018 was €346[13], 1% higher than in 2017 (€344). Necessarily, as contributions did not start until 2005 annuity recipients have been able to contribute to the Scheme for a maximum of only 13 years. The average annuity shown above reflects this limited contributions period.

Annuities paid in 2018 represented 13% of lump sum payments (€46 million of annuities vs. €355 million) and saw continued year-on-year growth, having increased by around 47% compared with the €32 million paid out in 2017.

10. These revisions are the result of updates made to employees' individual retirement accounts based on corrective or additional individual declarations, linked in particular to the beneficiaries' contributions for their last year of activity.

11. Vermeillet Report submitted to the Senate Finance Committee: https://www.senat.fr/rap/l17-108-324/l17-108-3249.html. This report also describes a trend of *"deferral [...] chosen to obtain replacement income at the full rate. The significant proportion of employees retiring with a premium is further evidence of this issue"*.

12. Based on the theoretical number of points of beneficiaries with an automatic right to a lump sum at the time of liquidation.

13. Average monthly payment for the full year. Based on the theoretical number of points of beneficiaries with an automatic right to an annuity at the time of liquidation.

2018 MANAGEMENT COSTS

A scheme managed by a public administrative institution under the supervision of the State.

Administrative management provided by Caisse des Dépôts et Consignations, under the authority and control of the board of directors.

Management of financial assets partially delegated to investment management firms.

Direct management by ERAFP of government bonds and government-backed securities.

Management costs in 2018: €34.3 million.

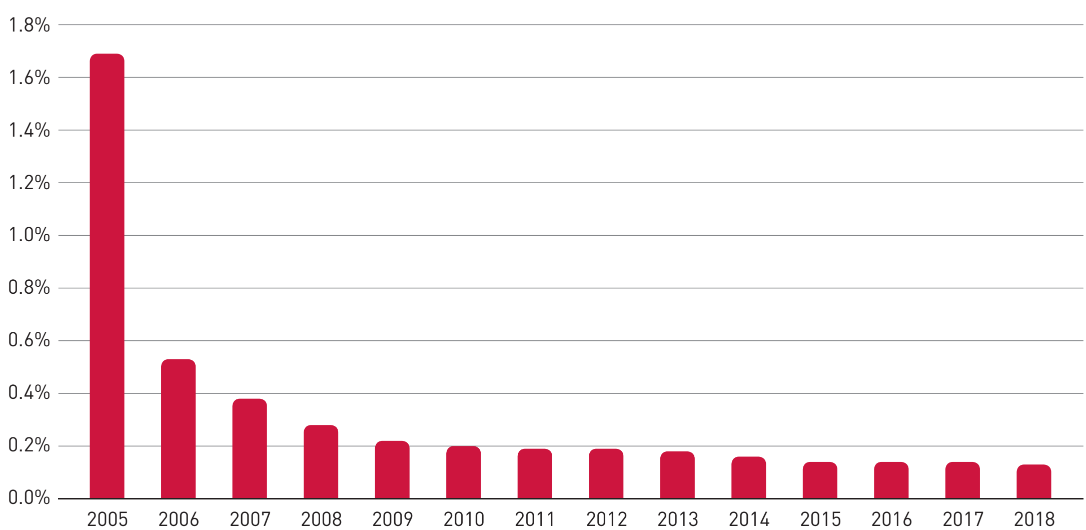
CONTROLLED ADMINISTRATIVE COSTS

The operating budget for the Scheme and ERAFP is financed directly from amounts deducted from contributions, and is approved annually by the board of directors.

In 2018, the Scheme's administrative costs totalled €34.3 million, the equivalent of 0.13% of the Scheme's net assets or 1.8% of contributions collected in 2018.

CHANGES IN SCHEME MANAGEMENT COSTS SINCE 2005 AS A PERCENTAGE OF NET ASSETS AT AMORTISED COST

Source: ERAFP



INITIATIVES FOR EMPLOYERS AND BENEFICIARIES AND INFORMATION ABOUT THE SCHEME

ERAFP's communications strategy is aimed at enhancing the Scheme's effectiveness by providing all stakeholders (beneficiaries, employers and institutional players) with the information required to participate fully at the appropriate level in its activities.
It also aims to promote and show the relevance of ERAFP's SRI approach, as social responsibility only becomes effective once it is shared.

ERAFP's communications strategy has two focuses:

- institutional communication, mainly with public sector bodies, this being ERAFP's responsibility;
- operational communication to inform employers and beneficiaries of their rights and obligations, which is the responsibility of the Scheme's administrative manager, Caisse des Dépôts.

MORE DETAILED INFORMATION FOR PUBLIC SECTOR EMPLOYERS

In its early years, the Scheme essentially assisted public sector employers with the practical aspects of fulfilling their responsibilities. Now, it aims to promote 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[14]

Answers to the question "Which is the most appropriate channel for providing you with information on additional pensions?" ranked public sector employers second, just behind the Scheme's website (taken from the results of the beneficiaries' section of the 2014 survey on Scheme awareness and image).

In light of this, ERAFP has since decided to develop a communication kit (downloadable from the Scheme's website) comprising informative, entertaining tools to help employers fulfil their role as key information providers.

In 2018, a major e-mail campaign promoting this 'employer kit' was carried out in collaboration with the administrative manager's customer relations departments, in the form of a targeted newsletter.

Distributed to more than 69,000 contacts, this newsletter was viewed by nearly one-third of recipients and generated more than 2,400 requests to ERAFP for brochures about the Scheme.

14. Results of BVA's 2014 survey on Scheme awareness and image.

› Employers in the public hospital segment are more likely than other employers to say that they are "well informed"[15]

On the operational front, Caisse des Dépôts' call centre in Bordeaux handled around 7,500 telephone calls from employers in 2018 (88% of calls received). In line with the almost uninterrupted gradual decline in call volumes seen in recent years, this represents a 9% decrease from the 8,300 calls received in 2017, and 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 in 2018. It regularly uses these sessions to present ERAFP's very popular video tutorials.

CDC also handled around 1,400 emails in 2018, the same amount as in 2017.

Note that around 154,800 account consultations were recorded on the 'e-services' website set up for employers, fewer than in 2017.

[See tables in the appendix showing changes since 2013]

7,500
employers' calls handled

1,400
e-mails processed

154,800
employer 'e-services' account consultations

BETTER UNDERSTANDING THE NEEDS OF ACTIVE CONTRIBUTORS IS A SCHEME PRIORITY

The lack of knowledge and awareness of the Scheme persisted in 2018, although the BVA survey carried out at the end of 2018 indicated that such knowledge was improving, having increased by ten points compared with 2014. ERAFP and the administrative manager are making every effort to fill this knowledge gap by being attentive to the needs expressed by beneficiaries.

› The Scheme's website is reportedly an important complement to information provided by the employer[16]

The site currently gives active contributors detailed information about the Scheme and allows them 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, using contact forms and newsletter subscription services.

The quarterly newsletter subscription forms are available in the 'Newsletter' section of the Scheme's website: https://www.rafp.fr/ newsletter/formulaire-d-abonnement.

The payment simulator – a long-time favourite with the Scheme's beneficiaries – can be accessed via the site's home page, and practical information files are available in the 'Publications' section.

15. Results of BVA's 2018 survey on Scheme awareness and image.

16. Results of BVA's 2014 survey on Scheme awareness and image.

In 2018, new video tutorials were posted on the Scheme's website and ERAFP's YouTube channel (https://www.youtube.com/channel/UCATu6OUACOSh9EvnryXnVLg). These two series of videos, one aimed mainly at employers and the other for beneficiaries, have been designed as informative, entertaining tools to explain how the Scheme works and answer the most frequently asked questions about it.

Informing retired beneficiaries

› Nearly 112,000 telephone calls from retired public servants were handled in 2018 (92.5% of calls received), which represents an increase of 13% from the 98,900 calls handled in 2017. Some 17,771 items of correspondence (letters and e-mails) were also processed over the year, a sharp 14% decrease from the 20,600 items processed in 2017.

› The number of users of the SARA online service reached 1,082,000 in 2018, a 25% increase from 2017 (866,000). This portal is complemented by a telephone appointment system operated via the Scheme's website, in which beneficiaries request an appointment and are called back on the day and at the time specified.

The administrative manager also continuously measures user satisfaction with its information services in order to improve the quality of its responses and case monitoring.

Informing active contributors

In compliance with the rights of active contributors to information, mandatory schemes as a whole sent out 975,369 individual statements and general indicative estimates relating to RAFP. Note that since 2011 RAFP has been responsible for providing beneficiaries with information if the primary scheme is unable to produce the required documents[17]. Accordingly, 67,340 of the 975,369 documents were sent out directly by RAFP, of which 39,743 electronically.

Furthermore, in 2018 Caisse des Dépôts handled nearly 23,300 telephone calls from active contributors under their right to information (86% of calls received), a 30% decrease from 2017 (33,600 calls handled), as well as around 2,000 letters and e-mails (also sharply down, by 37%).

[See tables in the appendix showing changes since 2007]

112,000

calls from retired beneficiaries

67,430

documents sent out to active contributors

17. Such as in cases of invalid affiliation agreements, known career contributions below the requisite minimum amount, ongoing re-employment procedures or employees exiting manager status, as defined by the Union Retraite GIP (retirement information public-interest group).

COMMUNICATION TO THE PUBLIC

› Via the press

ERAFP's investments and strategy account for most of its citings in the press. Similarly, its communiqués on 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 2018, a wealth of press and web articles referred to RAFP or ERAFP, mainly in connection with long-term investment and SRI policy.

› Via social networks

ERAFP is present on three social networks: Twitter (for five years now), LinkedIn and YouTube.

These three outlets, managed by ERAFP's communications department, are real channels of communication that help strengthen the Scheme's identity, raise its profile and highlight its initiatives, particularly in areas such as the energy transition.

ERAFP informs audiences already familiar with ERAFP and RAFP of its actions, commitments and news via these networks. But more importantly they enable it to reach out more easily and on a much wider scale to those who know little or nothing about the Scheme.

› Via the website: a central communication tool for the Scheme

Site traffic grew significantly in 2018, with approximately 65,000 visits per month (60,000 in 2017). The payment simulator was the most visited page, while the calculator guide, the premium and conversion factors, the point value changes and the guidance notes were the most downloaded items.

65,000

monthly visits
to RAFP's website

2

THE SCHEME'S LONG-TERM EQUILIBRIUM AND PERFORMANCE

ERAFP: KEY FIGURES

FINANCIAL DATA

Balance sheet assets of around

€26.0 billion

Estimated financial coverage ratio of around

108%

Technical reserves of around

€24.0 billion

Non-technical reserves of

€2.0 billion

Discount rate set at

0.8%*

ECONOMIC DATA

A stock market capitalisation net asset value of

€29.6 billion

An economic coverage ratio after revaluation of around

116%

An annualised internal rate of return on investments of

4.8%

since 1 January 2006

* Discount rate net of management fees, set using a method that takes into account re-investment risk.

TECHNICAL STEERING MECHANISMS

During the financial crisis and the ensuing economic crisis, the Scheme successfully and systematically covered its commitments to active contributors and retired beneficiaries.

ERAFP's long-term investment approach is based on:

› **A particularly conservative approach** in terms of defining the Scheme's technical parameters.

› **An asset allocation** designed to ensure its equilibrium over the long term.

GUIDELINES FOR MANAGING TECHNICAL PARAMETERS

RAFP is subject to strict prudential regulations stipulating that:

- the Scheme's commitments to its beneficiaries must be at least fully covered by its assets;
- the estimated present value of these commitments must be calculated using a conservative discount rate (i.e. one consistent with the conservatively estimated return on the Scheme's assets).

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

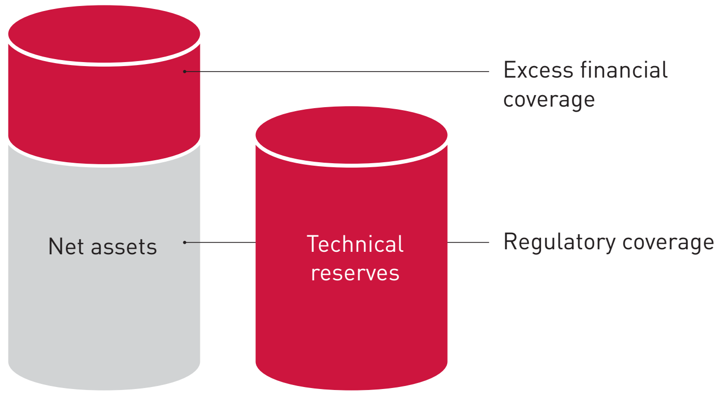
Conscious of its regulatory and prudential responsibilities, the board of directors has adopted written guidelines for managing the Scheme's technical parameters with a view to maintaining the purchasing power of beneficiaries' vested pension rights over the long term.

Ever since the Scheme was formed, the board of directors has carefully monitored changes in the following parameters:

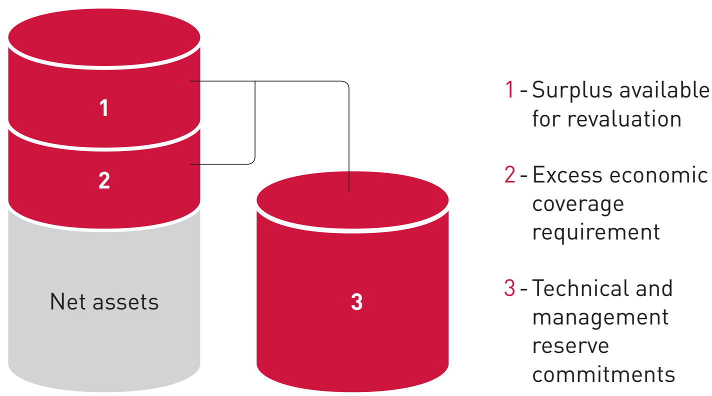
- the purchase and service values of points;
- the coverage ratio of the Scheme's commitments;
- the discount rate applied to reserves;
- the technical interest rate or 'premium rate'.

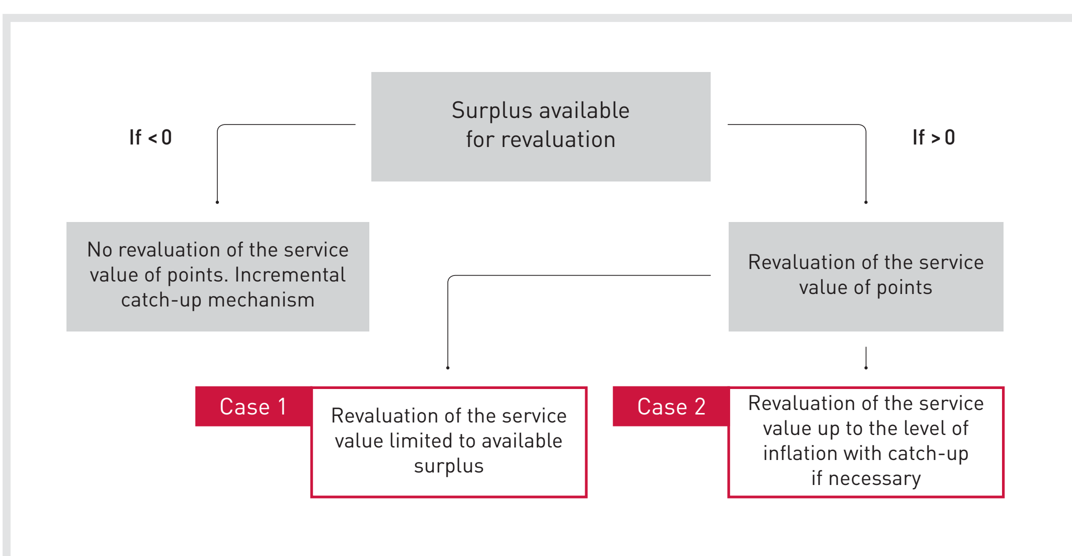
The guidelines recognise the existence of the link between the Scheme's ability to revalue vested rights and its assets, and also set out the conditions in which the premium rate may be revised.

FINANCIAL APPROACH



ECONOMIC APPROACH





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 2018, this ratio stood at approximately 108%. Mindful of its regulatory obligations, the Scheme maintains the necessary reserves and provides satisfactory coverage of its commitments. Nonetheless, the continuing particularly low level of bond yields in 2018 calls for a highly prudent approach to steering these parameters.

To round out this first approach, ERAFP has sought to better define its ability to revalue contributors' and beneficiaries' rights over the long-term horizon in which it operates. Accordingly, it has defined an 'economic' coverage ratio, which takes into account the latent value of the Scheme's assets[18] as well as the risks for which a margin of prudence should be recognised. This 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 level set for the revaluation vote, the excess economic coverage requirement stood at 18% of commitments at the end of November, while the economic coverage ratio came to 120%.

At 31 December 2018, the Scheme's economic coverage ratio after revaluation was approximately 116%.

PURCHASE AND SERVICE VALUES OF POINTS

The board of directors sets these parameters each year. Since adopting the management guidelines, it has taken 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.

At the end of 2018, the board of directors increased both the service value and the purchase value of a point for 2018 by 1.6%.

+1.6%

Revaluation of the service value of a point for 2019

CHANGE IN POINT PURCHASE AND SERVICE VALUES SINCE 2014

Source: ERAFP

	2014	2015	2016	2017	2018	2019
Purchase value (€)	1.09585	1.1452	1.1967	1.2003	1.2123	1.2317
Change	+1%	+4.5%	+4.5%	+0.3%	+1%	+1.6%
Service value (€)	0.04465	0.04465	0.04474	0.04487	0.04532	0.04605
Change	+1%	0%	+0.2%	+0.3%	+1%	+1.6%

See the appendix for changes since the Scheme's inception.

18. 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.

RESERVE DISCOUNT RATE

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 2016, which enable the Scheme to further diversify its asset allocation, certain parameters of the discount rate formula were updated, notably by including a conservative, flat-rate return for equities and gradually phasing out the dilutive effect of contributions. These adjustments were based on the observed levels of income generated by the equities in ERAFP's current portfolio and by past investments, with a prudential margin consistently applied.

The discount rate net of fees used to value the technical reserve at 31 December 2018 was 0.8%, up 10 basis points compared to 2017, mainly as a result of an update of the parameters based on a more focused consideration of certain risks (operational and interest rate).

The regulatory minimum level of management fees is 0.20%, in accordance with an order published on 26 November 2018. This minimum level is used in the discount rate formula to reflect the economic realities that the Scheme faces[19]. The resulting discount rate gross of fees came to 1.0%.

TECHNICAL INTEREST RATE OR 'PREMIUM RATE'

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

As these parameters fell out of sync with prevailing economic and financial conditions, the Scheme's premium rate was revised to make it consistent with market rates, by increasing the purchase value in 2015 and 2016 and raising the pivotal age for applying the premium[20]. These changes reduced the premium rate to 0.90%.

The discount rate net of fees used to value the technical reserve at 31 December 2018 was 0.8%, up 10 basis points compared to 2017.

19. See 'Management costs' on page 26.

20. 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.

ASSET ALLOCATION: GENERAL ORIENTATIONS AND INVESTMENT DECISIONS

ERAFP's investment policy aims to marry financial performance, risk management and socially responsible engagement within the strategic asset allocation approved by the board of directors.

In 2018, ERAFP continued to acquire the tools and resources needed to invest in new asset classes while simultaneously extending its SRI approach.

GENERAL INVESTMENT POLICY ORIENTATIONS

In 2018, the board of directors sought to continue to diversify ERAFP's investments. Using the room for manoeuvre provided by the changes to its investment regulatory framework since 2015, it approved the following general investment policy orientations in particular:

- the continued reduction in the weight of bonds, in a low interest rate environment (-3 percentage points);
- intensification of ERAFP's financing of the economy, with the ramping up of mandates for unlisted private equity and infrastructure assets and, depending on opportunities, investments in open funds (+1 percentage point);
- a 2 percentage point increase in the target for variable-income assets, bringing their proportion to 33-34% of the Scheme's total assets;
- continued investment in real estate (+1.5 percentage points), particularly housing, in line with its medium-term real estate strategy of achieving a one-third to two-thirds split between residential real estate assets and other types of real estate assets in the coming years.

<table>
<tr><th colspan="2"></th><th colspan="3">Strategic allocation adopted at the board of directors' meeting of 19 December 2017</th></tr>
<tr><th colspan="2"></th><th>Target</th><th colspan="2">Maximum</th></tr>
<tr><td colspan="2">Cash</td><td rowspan="3">54.2%</td><td colspan="2" rowspan="3"></td></tr>
<tr><td rowspan="4">Bonds</td><td>Public sector bonds</td></tr>
<tr><td>Corporate bonds</td></tr>
<tr><td>Convertible bonds</td><td>2.7%</td><td colspan="2">2.9%</td></tr>
<tr><td>Total bonds</td><td>56.9%</td><td colspan="2"></td></tr>
<tr><td colspan="2">Equities</td><td>28.5%</td><td>29.2%</td><td rowspan="3">34%</td></tr>
<tr><td colspan="2">Diversification</td><td colspan="2">3.0%</td></tr>
<tr><td colspan="2">Private equity and infrastructure</td><td>1.7%</td><td>1.8%</td></tr>
<tr><td colspan="2">Real estate</td><td>10.0%</td><td colspan="2">10.5%</td></tr>
</table>

IMPLEMENTATION OF THE INVESTMENT POLICY

› Steering

Net investments across all asset classes increased by around €2.14 billion in 2018.

In addition to the diversification of investments, a specific portfolio was created for the hedging of foreign exchange risk, with an allocation of €200 million for the year (9% of investment inflows). Bonds (including convertible bonds) accounted for 18% of inflows, i.e. €377 million, of which most was invested in euro-zone corporate bonds. As for government bonds, given the limited opportunities for a sufficient return, sales and redemptions exceeded purchases. Totalling €807 million, investments in equities accounted for the lion's share of inflows (37%). Accounting for 26% of investment inflows at €550 million, the real estate segment continued to receive substantial new investment, mostly in France. An additional €100 million, i.e. 5% of inflows, was invested in the multi-asset diversification fund, while unlisted private equity and infrastructure funds attracted 6% of investments, at €130 million. Investment opportunities in these various asset classes enabled ERAFP to keep liquid cash reserves in money market funds at a low level, with withdrawals of €19 million, i.e. less than 1% of investment inflows.

At the beginning of 2018, the portfolio of euro-denominated public sector and corporate bonds represented 60% of the Scheme's assets. ERAFP invests for the long term and aims to hold its bond investments until maturity. Most divestments are made 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.

€2.14 billion

invested in 2018

INVESTMENT FLOWS BY ASSET CLASS IN 2018

Source: ERAFP

	2018 investments	
Assets	**In € millions**	**As a percentage**
Money market	-19.4	-0.9%
Bonds	376.9	17.6%
Equities	806.6	37.6%
Diversification	100.0	4.7%
Private equity and infrastructure	129.6	6.0%
Real estate	549.5	25.6%
Foreign exchange hedging	200.0	9.3%
Total	**2,143.2**	**100%**

CHANGE IN THE BREAKDOWN OF THE OVERALL PORTFOLIO BY ASSET CLASS FROM 31 DECEMBER 2017 TO 31 DECEMBER 2018 (AS A PERCENTAGE OF AMORTISED COST)

Source: ERAFP

		Situation at 31 December 2018	Situation at 31 December 2017
		Breakdown as a percentage of amortised cost	Breakdown as a percentage of amortised cost
Cash and cash equivalents		0.5%	0.7%
Bonds	Public sector bonds	33.2%	37.2%
	Corporate bonds	20.9%	19.9%
	Convertible bonds	2.6%	2.7%
	Total bonds	56.6%	59.7%
Equities		28.3%	27.5%
Diversification		2.7%	2.5%
Private equity and infrastructure		1.2%	0.9%
Real estate		9.9%	8.7%
Foreign exchange hedging		0.8%	
Total ERAFP net assets		**100.0%**	**100.0%**

› 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 allows financial risk to 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 has created a dedicated investment fund, in which ERAFP invests based on market conditions in accordance with a fully internal investment process. Investments are made in each fund based on its overall performance and ERAFP's investment strategy. On 26 April 2018, ERAFP launched a call for tenders for the management of bonds denominated in 'hard' currencies (US dollars, euro, etc.) and issued by companies located in emerging countries.

In connection with previously launched tenders, ERAFP:

- awarded a real estate asset management mandate in France to Ampère Gestion (subsidiary of CDC Habitat) on 12 February, as well as two standby mandates to La Française REM;
- awarded an active foreign exchange hedging management mandate to Millennium Global on 19 April, as well as two standby mandates to BNP Paribas AM and Russell Investments.

12 February

Award of a real estate asset management mandate in France

At the end of the year, on ERAFP's behalf:

- three companies (Amundi, La Banque Postale AM and Ostrum 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;
- seven companies (Allianz GI, Amundi, AXA Investment Managers Paris, EdRAM, Mirova, Ofi AM and Sycomore AM) were managing euro-zone listed mid and large cap equities;
- one company (Candriam) was managing European listed mid and large cap equities;
- one consortium (BFT IM – Montanaro AM) was managing European listed small and mid cap equities;
- two companies (Sycomore AM and Amiral Gestion) were managing French listed small and mid cap equities;
- two companies (Natixis AM and Robeco Institutional Asset Management) were managing North American listed large cap equities;
- two companies (Comgest SA and Robeco Institutional Asset Management) were managing Pacific-region listed large cap equities;
- one company (Amundi) was managing a multi-asset portfolio;
- one company (Access Capital Partner) was managing a portfolio of unlisted private equity assets;
- one company (Ardian Capital SA) was managing a portfolio of unlisted infrastructure assets;
- two companies (AEW Ciloger 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;
- one company (Ampère Gestion) was managing French residential real estate assets; and
- one company, (Millennium Global), was managing a specialised professional foreign exchange hedging fund.

19 April

Award of a foreign exchange hedging management mandate

FINANCIAL, ECONOMIC AND SOCIAL PERFORMANCE OF INVESTMENTS

As a long-term investor, ERAFP seeks to invest its annual cash inflows to maximise its portfolio's return while keeping the Scheme's risk exposure at an acceptable level.

While ERAFP's primary objective is to provide a sufficient return for beneficiaries of the additional pension scheme, its investment policy "factors in the necessity to respond to the most urgent economic needs" (foreword to the SRI Charter).

Convinced of the link between long-term profitability and social responsibility, the board of directors has set itself the objective of developing the measurement of the tangible environmental, social and governance impact of its investments.

Given the difficulty of defining synthetic indicators comparable to those for financial performance, the impact of investments can be assessed by other components, such as the development of the economy, particularly SMEs and innovation, and the financing of green infrastructures.

RETURN OF 4.8% SINCE THE SCHEME'S CREATION

In 2018, the internal rate of return[21] for the portfolio as a whole was -3.7%. This reflects the negative stock market performance of ERAFP's portfolio over the year, which itself was due to the sharp correction experienced by the financial markets in the second half of 2018. The yield to maturity, meanwhile, came to 2.6%.

While annual performance is a useful monitoring indicator, for ERAFP, a long-term investor in its expansion phase, it seems more appropriate to measure performance over a longer period. With that in mind, it is worth noting that the portfolio's internal rate of return stood at 4.2% in stock market value terms over five years, and at 4.8% since the Scheme's inception.

Given ERAFP's policy of holding these securities until maturity, the stock market performance of euro-denominated public sector and corporate bonds is a less useful indicator than their yield to maturity. For an average duration of 6.8 years, the average yield to maturity on the euro-denominated public sector and corporate bond portfolio at the end of 2018 was 3.38%[22], slightly down from the previous year (3.54%).

For the rest of the portfolio, stock market performance gives an indication of how the various portfolios have performed over the year, although it is preferable to assess it over a longer period.

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

22. With inflation of 2%. 3.09% without inflation.

ANNUALISED INTERNAL RATE OF RETURN IN TERMS OF YIELD TO MATURITY AND STOCK MARKET VALUE AT 31 DECEMBER 2018

Source: ERAFP

	Annualised IRR at 31/12/2018	
	Yield to maturity	Market valuation
Cash and cash equivalents	-0.2%	-0.2%
Money market	-0.2%	-0.3%
Government bonds and similar	4.2%	0.4%
Euro corporate bonds	2.6%	-1.3%
International corporate bonds	-0.8%	-5.6%
Convertible bonds	0.0%	-7.2%
Euro-zone and European equities	2.2%	-11.0%
International equities	-0.9%	-6.8%
Multi-asset	0.0%	-6.8%
Unlisted and other	6.3%	5.7%
Real estate	2.8%	2.7%
Foreign exchange hedging	-19.3%	-19.3%
Overall portfolio	**2.6%**	**-3.7%**

ANNUALISED FIVE-YEAR INTERNAL RATE OF RETURN IN TERMS OF STOCK MARKET VALUE AT 31 DECEMBER 2018

Source: ERAFP

	Annualised IRR at 31/12/2018
	Market valuation
Cash and cash equivalents	0.0%
Money market	-0.2%
Government bonds and similar	5.2%
Euro corporate bonds	2.9%
International corporate bonds	-0.3%
Convertible bonds	0.5%
Euro-zone and European equities	3.4%
International equities	8.1%
Multi-asset	2.6%
Unlisted and other	5.3%
Real estate	3.7%
Foreign exchange hedging	-19.3%
Overall portfolio	**4.19%**

4.8%

Annualised IRR since the Scheme's inception

The equity portfolios posted a marked negative performance of -10.2% compared with 13.1% the previous year, when the market context was very favourable. The performance of US dollar-denominated corporate bonds was also negative (-5.6%), after a gain of 4.8% in 2017. Convertible bonds suffered from this negative environment too, slipping 7.2%, whereas in the previous year their performance (+5.5%) had benefited from the global upturn. The multi-asset portfolio's performance also turned from positive to negative (-6.8%) after a good year in 2017 (+11.1%) that had reflected the upward trend in variable-income asset classes. Meanwhile, the performance of unlisted assets remained positive at 5.7%, as did that of the real estate segment (2.7%), although it slightly lagged 2017's performance (4.2%). These asset classes proved less sensitive to economic conditions.

The internal rate of return over five years (2014-2018) of ERAFP's portfolio came to 2.89% per annum in yield to maturity terms and 4.19% per annum in stock market value terms. This level was mainly attributable to the performance over the period of bonds (54% of ERAFP's portfolio) and equities (28%). The sharp fall in the equity market in the last quarter of 2018 had a discernible impact on the IRR for the year ended 31 December 2018[23].

As regards bonds (excluding convertibles), the market's performance over the period under review was linked to the fall in interest rates in the euro zone, which had a positive impact on IRR calculated in terms of stock market value. The IRR mainly reflects flows recorded during the period (coupons, purchases, sales and redemptions). The slightly negative IRR on US dollar-denominated corporate bonds resulted from the rise in interest rates at the end of the period.

As regards European equities, the positive IRR can be partly explained by the rise in European and US equity markets during the period. The equity funds started to generate dividends from 2017, which is directly reflected in the yield-to-maturity IRR.

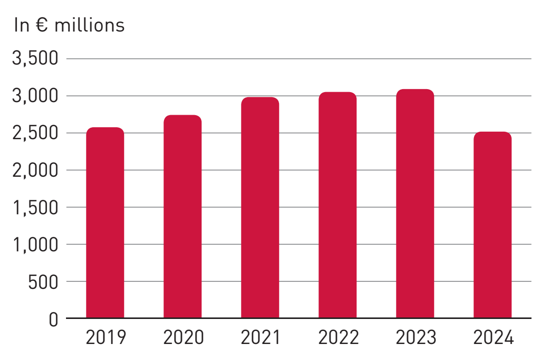
ERAFP, A LONG-TERM INVESTOR IN THE ECONOMY

One way to complement the view of financial performance by asset class is to develop an allocation view by destination, by assessing what end investments in the economy finance.

The public financial sector can step in when access to credit by economic players becomes tighter as a result of an economic slowdown[24]. ERAFP performs such a countercyclical function. Because it is still only at the beginning of its expansion phase, the additional pension scheme will generate an average annual positive net cash flow of at least €2.5 billion in the coming years. It is therefore in the unusual position of being able to support the organisations in which it invests over the long term.

RAFP'S FORECAST NET MEDIUM-TERM INVESTMENT FLOWS*

Source: ERAFP



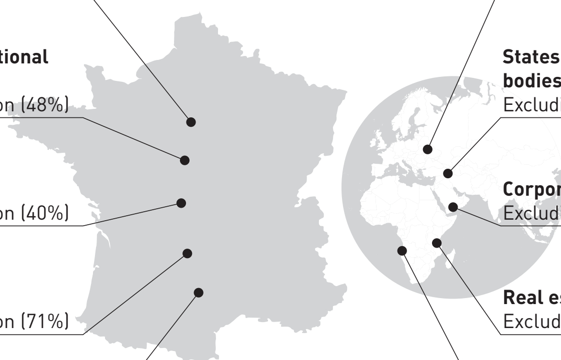
* Contributions, redemptions and bond coupons, less benefits – excluding reinvestment of bond redemptions (conservative view).

23. This decline was then partly reversed in the first quarter of 2019, as reflected in the IRR in stock market value terms at the end of March 2019 (4.73% p.a. on a five-year rolling basis).

24. *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.

INVESTMENTS IN FRANCE AND GLOBALLY BY ECONOMIC DESTINATION AT 31 DECEMBER 2018 (AT AMORTISED COST)

Source: ERAFP



Regional and local authorities	France €156 million (100%)	Excluding France €0 million	**Total €156** million
States and supranational bodies	France €4,041 million (48%)	Excluding France €4,392 million	**Total €8,433** million
Corporates	France €5,913 million (40%)	Excluding France €8,847 million	**Total €14,760** million
Real estate	France €1,816 million (71%)	Excluding France €742 million	**Total €2,558** million
Total net assets	France €11,926 million (46%)	Excluding France €13,981 million	**Total €25,907** million

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 developing innovation and small enterprises.

In 2018, ERAFP provided €11.9 billion of financing to the French economy, in the broad sense, representing 46% of its total assets at amortised cost.

In 2018, ERAFP provided €11.9 billion of financing to the French economy, in the broad sense, representing 46% of its total assets at amortised cost.

INCREASED FOCUS ON INVESTMENTS IN VARIABLE-INCOME ASSETS

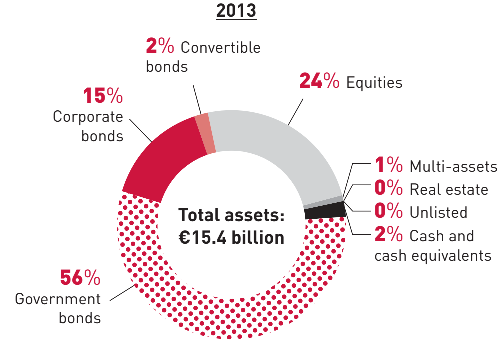
Over the past five years, the share of assets allocated to financing the economy via companies has increased significantly, in a context of significant growth in the portfolio (from €15.3 billion to €25.9 billion at amortised cost): between 2013 and 2018, around €8 billion was invested in equities, corporate bonds, private equity and infrastructure, and €2.5 billion in real estate.

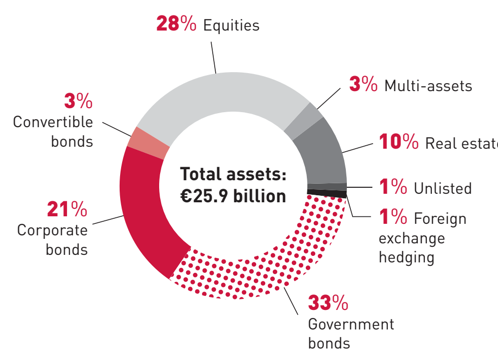
In sector terms, local and regional authority public sector bond issues have traditionally formed the core of ERAFP's portfolio, and public sector financing therefore remains predominant. Beyond that, there is a good level of diversification.

Investment amounts also depend on issuance volumes in the various business sectors. Banks and the financial sector as a whole are big issuers, which is reflected in the breakdown of investments. Conversely, the more modest transaction volumes in unlisted assets limit investments in private equity and infrastructure assets, although the latter are increasing.

BREAKDOWN OF ERAFP'S PORTFOLIO BY ASSET CLASS AT 31 DECEMBER 2013 AND 31 DECEMBER 2018 (AT AMORTISED COST)

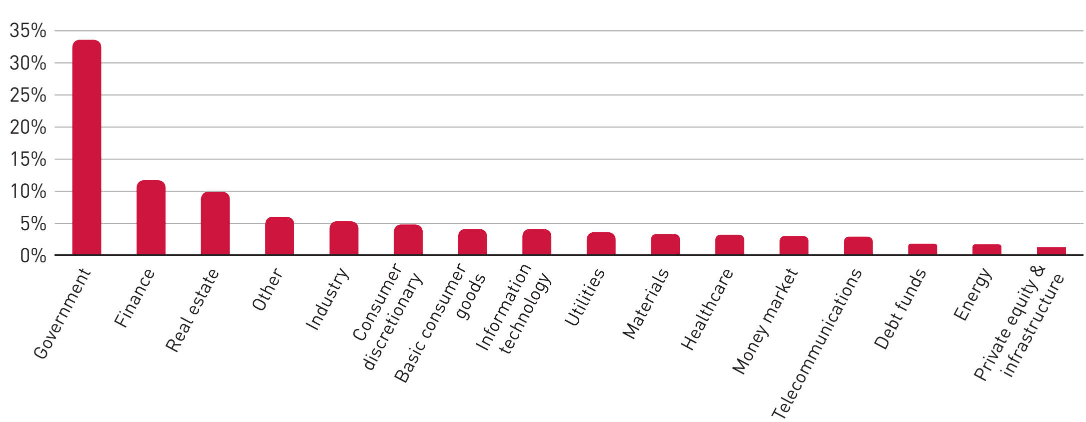
Source: ERAFP





BREAKDOWN OF ERAFP'S PORTFOLIO BY SECTOR DESTINATION AT 31 DECEMBER 2018 (AT AMORTISED COST)

Source: ERAFP



AN INVESTOR WITH AN UNWAVERING FOCUS ON SRI

› Vision and values

As a public institution established for the benefit of civil servants employed by the State, regional and local authorities, hospitals and the judiciary, ERAFP's role is to serve the public interest. As a pension scheme with a capitalisation-based business model, it acts over the long term to ensure equity and intergenerational solidarity.

And, as the Brundtland report pointed out, focus on the long term and future generations is the cornerstone of the sustainable development concept: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs"[25].

ERAFP's inclusion of sustainable development in its financial management has led it to adopt a socially responsible investment approach since its creation in 2006.

In 2006, SRI assets amounted to €17 billion in France[26], and a recent study by AFG[27] estimated that they had exceeded €1,000 billion by the end of 2017. While the definitions and scope of analysis have had time to change in nearly ten years, these figures give an idea of the market's strong growth.

ERAFP has not waited for the trend to take hold, however. As early as 2006, its board of directors stressed that "investments based solely on the criterion of maximum financial return fail to account for their social, economic and environmental consequences" (excerpt from the SRI Charter).

ERAFP has therefore played a pioneering role in the field of SRI. As well as being an early adopter, it has an authentic approach based on values set out in its Charter and which its board of directors has consistently promoted.

The values embodied in ERAFP's Charter provide answers to the challenges that we face as a society.

Environmental and climate change challenges – The IPCC report published in 2018 warns of the dramatic consequences of warming exceeding 1.5°C: if nothing is done to reverse the rise of greenhouse gas emissions, by 2100 the increase in temperatures compared to the pre-industrial era will be 5.5°C. Through its investments, ERAFP seeks to encourage companies to take into account the environmental impact of their products and services, control the risks associated with climate change and contribute to the energy transition.

Governance challenges – For ERAFP, analysing governance is essential in that it makes it possible to assess a company's responsibility towards its stakeholders. ERAFP seeks to promote companies with governance that ensures a balance of power, effective control mechanisms and a responsible remuneration policy. Good quality governance makes it possible to rise to challenges such as the fight against corruption and money laundering, the respect and protection of customers' rights, and tax transparency and responsibility.

Social challenges – The very identity and composition of ERAFP's board of directors make the social dimension a fundamental one, with eight representatives of active contributors proposed by the representative trade unions, eight representatives of employers and three qualified persons. In this way, ERAFP seeks to promote the rule of law and human rights through both its sovereign investments and its private sector investments, with a particular focus on supply chains. As a French public institution, ERAFP seeks to protect social benefits by promoting labour-management dialogue and the respect of union rights. Lastly, in the face of social crises and restructurings, ERAFP expects companies to manage careers responsibly and to be committed to developing jobs.

25. Definition given in the so-called Brundtland report by the United Nations' World Commission on the Environment and Development (*Our Common Future*, 1987).

26. According to Novethic, although it has not provided a recent number. The figures are therefore not entirely comparable between the Novethic and AFG methods.

27. https://www.afg.asso.fr/wp-content/uploads/2018/09/2018_09_25_CP-Stat-IR.pdf

Faced with these challenges, and to encourage companies to embrace its values, ERAFP has adopted an approach based on selecting and supporting.

› Selecting and supporting

Selecting – Seeking to invest responsibly in all economic sectors, ERAFP applies a best in class approach aimed at promoting the most responsible issuers in each sector.

For all its investments, ERAFP evaluates issuers on the basis of an SRI reference framework developed in line with its values. It accordingly applies its best in class rules to each asset class with the aim of encouraging each issuer to improve.

ERAFP ensures that its issuers progress by monitoring their SRI rating over time, with ratings produced both by its own managers and by a third-party rating agency. ERAFP also ensures the effectiveness of its SRI approach by comparing the environmental, social and governance (ESG) performance of its portfolios with that of benchmark indices. In most cases, the ESG performance of ERAFP's portfolio exceeds that of its benchmark index (see section 3 of this report).

Supporting – ERAFP strives to support, on a long-term basis, the issuers in which it has decided to invest, in order to sustainably promote, within these entities, practices that comply with the values it supports.

As well as diversifying its assets, ERAFP has rounded out its best in class approach by stepping up its engagement with issuers. Through its managers, its direct participation in collaborative initiatives and the exercise of its voting rights, ERAFP seeks to help issuers adopt the full range of SRI values.

For example, through its participation in the Climate Action 100+ engagement initiative, ERAFP enters into dialogue with issuers in the utilities and automotive sectors to encourage them to make climate change issue management part of their governance, reduce their greenhouse gas emissions across their whole supply chain and disclose more fully how they take climate change risks and opportunities into account in their investments.

The in-depth monitoring of controversial practices also makes it possible to advise issuers on their response and the tools they can use to prevent negative impacts on society.

ERAFP strives to support, on a long-term basis, the issuers in which it has decided to invest, in order to sustainably promote, within these entities, practices that comply with the values it supports.

EcoVadis is a corporate social and environmental responsibility (CSR) rating platform that enables large groups to assess their suppliers' CSR performance.

› Since its establishment in 2007, EcoVadis has become partner to the purchasing teams of more than 300 multinationals, including Nestlé, Coca-Cola, Nokia, L'Oréal and Air France-KLM.

› The company aims to improve corporate social and environmental practices by influencing global supply chains.

› Some tens of thousands of suppliers use EcoVadis to reduce risk, steer innovation and foster transparency and trust between trading partners.

› By investing in EcoVadis, ERAFP affirms its support for corporate social and environmental responsibility and responsible supply chain management.

THREE IMPACT PRIORITIES: FINANCING SMES, THE ENERGY TRANSITION AND INTERMEDIATE HOUSING

› Investments in SMEs: disseminating innovation across the economy

European SMEs saw their access to financing deteriorate in the years following the major credit contraction of 2008-2009[28]. And yet financing these investments, which have a material impact on employment and the economy's capacity for innovation, is a key way of generating economic growth[29]. In 2016, there was a continued lack of private equity financing in France[30].

By the end of 2018, ERAFP had committed nearly €1.6 billion to financing European SMEs, of which around €1.2 billion had already been invested. ERAFP is involved at various stages of the development of SMEs and mid-caps:

- it invests in listed SMEs and mid-caps through the management mandates awarded to Amiral Gestion, BFT IM – Montanaro AM and Sycomore AM;
- it contributes to the financing of unlisted SMEs and mid-caps through loan securitisation funds in which it invests directly or through the management mandates held by Amundi, La Banque Postale AM and Ostrum AM;
- it makes private equity investments in unlisted SMEs directly through open-end funds, through the management mandate awarded to Access Capital Partner or through the multi-asset mandate held by Amundi.

The 'transmission belt' channelling innovation into the production system, private equity operates at a number of stages of company development:

- it enables young start-ups to deploy a strategy, through minority equity interests in the form of venture capital;
- it helps existing companies to grow, through minority equity interests in the form of growth capital;
- and, more specifically for existing companies, it assumes responsibility for their development.

Private equity is an effective conduit for so-called impact investment, which factors in social objectives such as developing activity and jobs in disadvantaged areas, meeting the basic needs of so-called vulnerable populations, promoting sustainable consumption modes and sharing value creation with stakeholders.

OpenClassrooms is an online education platform that focuses on digital businesses and offers free or subscription-based access. The company aims to make education accessible to as many people as possible and to help people into jobs, including the long-term unemployed.

› Created in 2007, it generated revenue of €15 million in 2018, up 110% from 2017.

› In 2018, more than 73,000 people successfully completed an OpenClassrooms course, including more than 10,000 job seekers. Its objective for 2020 is to educate 90,466 people (+24%), including11,731 job seekers (+17%).

› By investing in OpenClassrooms, ERAFP affirms its support for lifelong education and employment.

€1.6 billion

committed to the financing of European SMEs

28. Source: OECD *Le financement des PME et des entrepreneurs* ('The financing of SMEs and entrepreneurs'), key indicators, 2013.
29. Source: Economic analysis council (*An SME strategy for France*), 2006 report.
30. Source: Cour des Comptes (Court of Auditors), *L'État actionnaire* ('The shareholder State'), thematic report, January 2017.

› Financing the energy transition, particularly *via* network infrastructures

Beyond the question of reducing the portfolio's climate change-related risks, solutions to global warming and the development of clean energies will require significant funding in the coming period. Thanks to ERAFP's emphatic focus on the energy transition, its proportion of 'green financing' – 1.4% of its assets – exceeds the average for its peers (1.07%)[31].

Allego is a pan-European company specialising in the installation and management of charging terminals for electric and hybrid vehicles. Created in 2013, it has operations in six European countries and is held via the Meridiam fund.

› In 2018, the company managed 10,000 charging stations.

› Its activities are a response to an overall policy implemented by a number of European countries with the objective of achieving 100% zero-emissions vehicles (Norway by 2025, Germany by 2030, the Netherlands by 2035 and France by 2040).

› In 2018, it launched the Metropolitan Greater Areas Electrified (MEGA-E) project, introducing high-power chargers that provide 100 km of battery life with a five-minute charge.

› The transport sector is both a big consumer of energy and a major emitter of greenhouse gases. It accounts for 35% of CO_2 emissions and 32% of end energy consumption in France. Private cars account for two-thirds of the sector's energy consumption*.

› By investing in Allego, ERAFP affirms its support for the energy transition and the objective of reducing greenhouse gas emissions.

*Source: ADEME https://www.ademe.fr/sites/default/ files/assets/documents/avisademe-vehicute-electrique.pdf

The deployment of infrastructures that emit fewer greenhouse gases, in particular through European networks, is also a key aspect of the transition to a low-carbon economy. Here again, ERAFP stands out for its high proportion of 'green infrastructures', with 40% of its direct investments dedicated to funding renewable energy projects.

The facilities that ERAFP has helped finance generated 156 GWh of electricity in 2018, of which 135 GWh of wind power and 19 GWh of solar power. As some projects are still under construction, the related output is expected to increase significantly in the coming years.

› Financing intermediate housing for the benefit of public sector employees

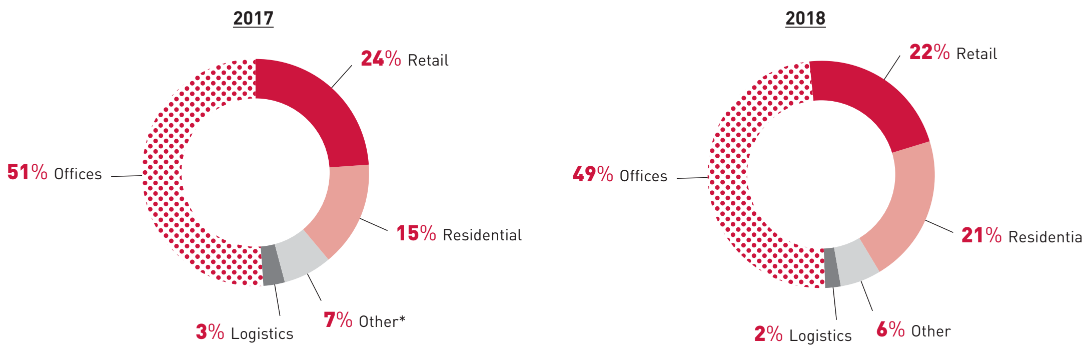
In line with the board of directors' real estate strategy, which aims to consider the sector's socio-economic challenges more closely, the share of housing investments is set to grow in the coming years, with half of the real estate portfolio's investment flows directed into residential assets to bring its proportion of the real estate portfolio to one third.

Within this segment, a focus on intermediate housing will help meet identified social needs. Intermediate housing is designed to facilitate access to housing in areas where rents are high in relation to disposable incomes. By offering rents at a discount to market rates, it represents a mid-way solution between private and social housing for people with incomes higher than the social housing threshold.

31. Source: Novethic study: *173 nuances de reporting* ('173 shades of reporting'), October 2018 (https://www.novethic.fr/fileadmin//user_upload/tx_ausynovethicetudes/pdf_ complets/Novethic_2018_173-Nuances-de-Reporting-Saison2.pdf).

CHANGE IN THE BREAKDOWN OF THE REAL ESTATE PORTFOLIO BY SECTOR (AT AMORTISED COST)

Source: ERAFP



* Tourism, leisure and mixed assets as part of a value added strategy

Social performance: Thanks to this discounting in relation to market rents, accommodated households achieved an average annual saving of €1,167.

When investing in intermediate housing, ERAFP insists on obtaining a right of first refusal. This enables it to have these units allocated to public sector employees priced out of the housing market, whether in Paris and its environs, on the Côte d'Azur or in the Gex region.

The launch of a specific mandate for the management of residential real estate assets will boost this initiative's impact, with investments in intermediate housing exceeding €200 million in the short term[32].

As part of its real estate investment programme, ERAFP invested €60 million in the FLI intermediate housing fund launched in 2014. The Scheme has a right of first refusal in proportion to its share in the fund, which is managed by CDC Habitat and finances 550 housing units. It has signed a delegation agreement with the DGAFP, France's directorate general for administration and the public sector, to make these units available to public sector employees.

In 2018, CDC-Habitat dedicated a specific area on its website for housing ads related to ERAFP's investment: https://www.cdc-habitat.fr/fonctionpublique.

Central government employees can now use the site to create a personal account, view offers and apply for accommodation.

Account holders who have asked for updates on housing available in a given area receive related information seven months before the reserved housing units are delivered. Then, no later than three and a half months before the scheduled delivery, they can access the ads for the platform's reserved housing units. This exclusive access runs for a one-month period.

The FLI housing deliveries are set to continue mainly over the next three years, after which the more recent dedicated intermediate housing investments will lead to further deliveries.

32. In terms of commitments, this amount was reached in May 2019.

ERAFP'S FINANCIAL STATEMENTS

The Scheme's financial statements illustrate both its steady expansion and its financial strength.

ERAFP has a specific chart of accounts that reflects the comprehensive provisioning of its commitments and the characteristics of its financial investments. It requires, *inter alia*:

- the recognition of assets at their historical value, excluding any amortisation and impairment; and
- a very conservatively set discounting rate for the Scheme's commitments. The resulting rate for the 2018 financial year was 0.8% (net of expenses).

The board of directors voted on the 2018 financial statements at its meeting of 27 June 2019. On said date, the statutory auditors certified without reservation that the annual financial statements gave a true and fair view of ERAFP 's assets, liabilities, financial position and the results of its operations at the end of the year under review.

A SOLID BALANCE SHEET

In 2018, total assets came to €26.0 billion, up by 9% from the previous year. On the liabilities side, the technical reserve, which reflects the present value of future commitments corresponding to rights being vested or paid, discounted at the very conservative rate of 0.8%, came to €24.0 billion (up 6% from 2017). On the assets side, investments totalled €25.8 billion (up 9% year on year).

An impairment reserve of €2 million was set aside for financial assets deemed subject to a permanent unrealised capital loss, while, pursuant to the principle of prudence, the overall unrealised capital gain of €3.63 billion at 31 December 2018 was not recognised. The market value of the Scheme's assets, which totalled €29.6 billion at year-end, was equivalent to 123% of the value of its commitments. On the accounting front, the commitments coverage ratio came to 108%, resulting in the recognition of non-technical reserves of €2.0 billion.

As for other asset items, cash and cash equivalents amounted to €89 million, while receivables from contributors and beneficiaries came to €115 million, reflecting contributions not paid at the end of the financial year but due for subsequent collection as well as overpayments to beneficiaries resulting from a switch from lump sum to annuity. A collection risk impairment reserve was posted corresponding to a conservatively valued proportion of these receivables (2% for receivables from contributors and 8% for receivables from beneficiaries).

On the liabilities side, given that the Scheme was only recently established, the largest item (€22.4 billion) was the reserve for rights being vested, of which 99.9% are recognised individually, this being an essential feature of the Scheme. The remaining reserves correspond to situations in which the reported information, while not yet allowing payments to be recognised individually, leads to the all but certain assumption that the related rights will accrue to RAFP's beneficiaries. The reserve for rights being paid increases in line with the number of annuity payments; it represented €1.5 billion at the end of the year, up 38% from 2017.

BALANCE SHEET OVERVIEW

Source: ERAFP

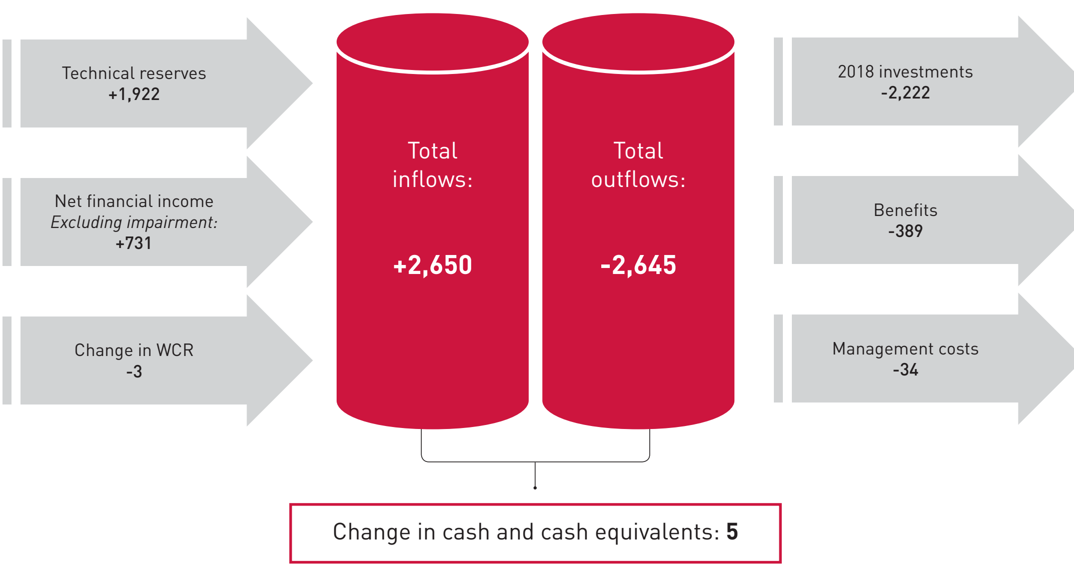
	Assets (net) in € millions				Liabilities in € millions		
	2017	2018	Change		2017	2018	Change
Financial investments	23,590	25,818	9.4%	Technical reserves	22,649	23,988	5.9%
Receivables	111	115	3.6%	Non-technical reserves	1,126	2,024	79.8%
Cash and cash equivalents	84	89	6.0%	Payables	9	10	11.1%
Total	**23,785**	**26,022**	**9.4%**	**Total**	**23,785**	**26,022**	**9.4%**

€2.22 BILLION IN FUNDS INVESTED IN 2018

As regards financial flows, contributions and financial income for the year came to €2.64 billion. These fund inflows were used both to invest €2.14 billion and to pay benefits totalling €390 million[33]. There was consequently a net increase of €5 million in cash and cash equivalents.

CASH FLOW OVERVIEW (IN € MILLIONS)

Source: ERAFP



33. In 2018, benefits recognised, representing payments actually made, came to €389 million while benefits calculated, representing benefit payment orders issued, came to €402 million. The difference corresponds to the amount of annuities in pre-allocation suspense accounts, which are credited to RAFP.

2018 INCOME STATEMENT

In 2018, technical income, mainly corresponding to RAFP contributions, totalled €1.92 billion, up 3% year on year. The technical reserve increased by €1.34 billion. Net financial income totalled €736 million, up sharply by 29% compared with 2017, mainly due to the increase in investment income. Benefits also increased, by 8%, which given operating expenses of €34 million[34] led to a positive balance carried forward of €899 million. Pursuant to decree 2010-1742 of 30 December 2010, this accounting result was zero-balanced by an allocation to non-technical reserves, which came to €2.0 billion, up sharply from €1.1 billion in 2017.

INCOME STATEMENT OVERVIEW (IN € MILLIONS)

Source: ERAFP

Technical income	1,922
Net financial income	736
Change in Scheme reserves	(1,339)
Benefits	(390)
Operating expenses	(34)
Non-recurring income	4
Income before allocation to non-technical reserves	899
Change in non-technical reserves (allocation)	899
Total	**0**

The balance sheet, income statement and cover letter of the statutory auditors' report appear in the appendix to this report.

€1.34 billion
Change in the technical reserve

€736 million
Net financial income

€899 million
Balance carried forward

34. See page 26.

INTERNAL CONTROL AND RISK MANAGEMENT SYSTEM

ERAFP has put in place an internal control and risk management system alongside the Scheme's technical and financial management tools, notably to ensure permanent risk monitoring and compliance with the rules and procedures in force.

In view of ERAFP's activities, a significant part of the internal control and risk management system is dedicated, aside from the control of operational risks, to investments and the associated financial risks, as well as to technical risks. ERAFP's ability to fulfil its missions is thus assessed regularly and appropriately in view of its organisation and that of its delegated asset managers and representatives.

An overview of the 2018 internal control report appears in the appendix to this document. Applicable regulations provide that the board of directors deliberate each year on a detailed control report, which reviews the ongoing assessment of all risks over the past financial year[35].

An overview of the 2018 internal control report appears in the appendix to this document.

35. Article 22 of decree 2004-569 of 18 June 2004 on the French Public Service Additional Pension Scheme.

SRI POLICY: FINE-TUNING THE STEERING OF CLIMATE CHALLENGES

In accordance with the recommendations of article 173 of the law on the energy transition for green growth, which is of particular importance for French institutional investors, this section is structured as follows:

- 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;
- engagement strategy and related initiatives.

The G20's Task Force on Climate-related Financial Disclosures (TCFD) also produces recommendations to help companies take into account climate challenges, which ERAFP likewise strives to implement.

ERAFP'S IMPLEMENTATION OF TCFD RECOMMENDATIONS

› **Governance:** the TCFD focuses on the consideration by management bodies (the board of directors and management in ERAFP's case) of climate change risks and opportunities.

In that regard, initiatives in 2018 included a presentation to the board of directors on the climate change risks and opportunities associated with ERAFP's portfolio, a conference and discussion day for the board and management on ecological transition topics such as challenges related to the transition to sustainable food systems, the ecological transition and environmental promotion tools, and green finance, and management's contributions to various climate change conferences and initiatives.

› **Strategy:** the TCFD and article 173-VI are aligned in this area, calling on companies to describe their exposure to risks, how these risks impact their strategy and how they change their strategy accordingly (and notably how consistent their investment policy is with climate change mitigation objectives).

This annual report explains the climate change risks and opportunities associated with ERAFP's portfolio and how its strategy aims to meet these challenges.

› **Risk management:** the TCFD underlines the importance of describing the processes put in place to target risks and integrating them into the company's risk management.

The strategic management implemented by ERAFP includes monitoring its asset management companies' initiatives to take into account climate-related risks. Within this framework, it refines its measurement tools over time to make it possible to target the portfolio's tangible risks more closely. In addition, in 2016, ERAFP took action to strengthen its shareholder engagement both directly and through its managers, with the aim of permanently promoting practices in line with its values – most notably the energy transition and the fight against climate change.

This public report explains the climate change risks and opportunities associated with ERAFP's portfolio and how its strategy aims to meet these challenges.

GENERAL ESG APPROACH

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

› The board of directors oversees the SRI approach internally; while the board and management naturally rely on outside service providers such as consultants and rating agencies, the board itself has defined the approach to satisfy the demands and values of the board members, and permanently monitors its application.

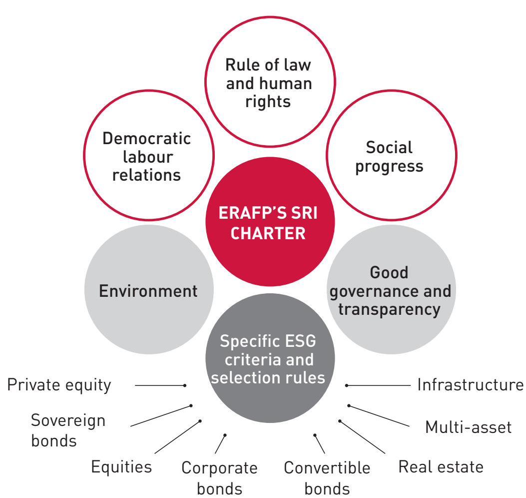
› The policy's content is '100% SRI', in other words the SRI Charter applies to all of the Scheme's investments and takes into account the specific features of each asset class.

THE SCHEME'S SRI APPROACH IS GLOBAL

› 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 founded on a broad-based, cross-cutting selection of stocks rather than a large number of single-themed sub-portfolios.

AN SRI CHARTER BROKEN DOWN INTO EVALUATION CRITERIA FOR THE VARIOUS ASSET CLASSES



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.

The application of the best in class principle results 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.

ESG INFORMATION PROVIDED TO CONTRIBUTORS

Since ERAFP's inception, its socially responsible investment policy has been developed through the proactive 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 heightened 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.

At the Couronnes Instit Invest ceremony, ERAFP received an award in recognition of its institutional communication policy, specifically as regards transparency in its financial communication and with regard to its beneficiaries.

The Agefi group awards this prize every year in various categories with the aim of encouraging institutional investors to adopt good financial management practices and so maintain their institution's credentials and, ultimately, improve the service provided to each beneficiary.

https://www.agefi.fr/site/couronnes

Every year, ERAFP publishes this 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.

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

This report, along with the initiatives launched to align the investment portfolio with international global warming limitation objectives, also provide a starting point for dialogue with the local and regional authorities with the keenest interest in ensuring that climate considerations are taken into account by institutional investors.

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. In view of 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 decarbonisation.

FIND OUT MORE

SRI section of the RAFP website

IMPLEMENTATION OF SRI AT ERAFP

In accordance with article 173 of the energy transition law, this report sets out below ERAFP's adherence to the codes and initiatives that support the values it promotes, its SRI governance approach, the management of its investments' ESG risks, its values framework and the way in which it is implemented, and, lastly, its climate analysis methodology.

ADHERENCE TO CODES AND 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 duly published[36].

This report presents – non-exhaustively – information illustrating the effective application of these principles.

UNITED NATIONS PRINCIPLES FOR RESPONSIBLE INVESTMENT (PRI)

1. Incorporate environmental, social and governance (ESG) issues into investment analysis and decision-making processes.
2. Be active owners and incorporate ESG issues into our ownership policies and practices.
3. Seek appropriate disclosure on ESG issues by the entities in which we invest.
4. Promote acceptance and implementation of the Principles within the investment industry.
5. Work together to enhance our effectiveness in implementing the Principles.
6. Report on our activities and progress towards implementing the Principles.

36. https://reporting.unpri.org/surveys/PRI-reporting-framework-2018/AB355B99-ED76-4A15-A9B1-58ABFBDBA575/79894dbc337a40828d895f9402aa63de/html/2/?lang=en&a=1

As well as the PRI, ERAFP has joined other initiatives:

› Internationally

› In 2012, the International Investors Group on Climate Change (IIGCC), which enables it to lobby issuers and regulatory bodies to promote more responsible practices on this key issue for ERAFP.

› In 2015, the Portfolio Decarbonization Coalition (PDC), a United Nations Environment Programme (UNEP) initiative, and the Carbon Disclosure Project.

› In 2017, the Asian Corporate Governance Association (ACGA).

› In France

› In 2016, the *Forum pour l'Investissement Responsable* (Responsible Investment Forum – FIR), which promotes SRI and related best practice, in particular by taking positions publicly.

› In 2016, Finance for Tomorrow, a Paris financial markets initiative for green and sustainable finance.

Involvement in this type of initiative is borne out of ERAFP's engagement approach, which is described in more detail on page 100.

SRI GOVERNANCE AT ERAFP

› Board of directors (based on the CSPP's work)

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:

- it 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;
- it 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;
- it ensures that contracts entered into with the SRI rating agencies are correctly performed;
- it reports to the board of directors and the CSPP on implementation of the SRI policy, and assists directors with the preparation of their work.

› Rating agencies

The rating agency – currently Vigeo – is responsible for analysing the asset portfolio and providing detailed half-yearly reports on the bond and equity portfolios for submission to ERAFP.

› Asset management companies

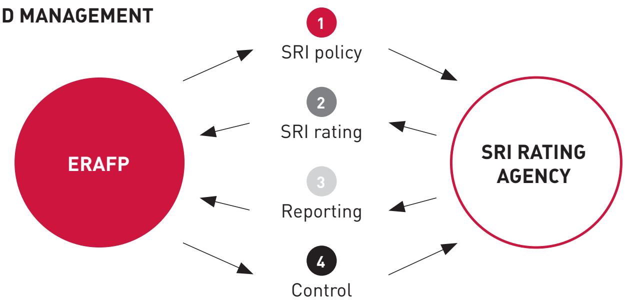
The management of asset classes other than sovereign and equivalent bonds is delegated almost entirely to asset management companies.

At end-2018, ERAFP had 27 dedicated mandates under management with asset management companies, which were charged with investing on its behalf in listed company shares, corporate bonds, convertible bonds, unlisted companies 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 delegated asset managers to discuss matters such as the mandates' SRI profile.

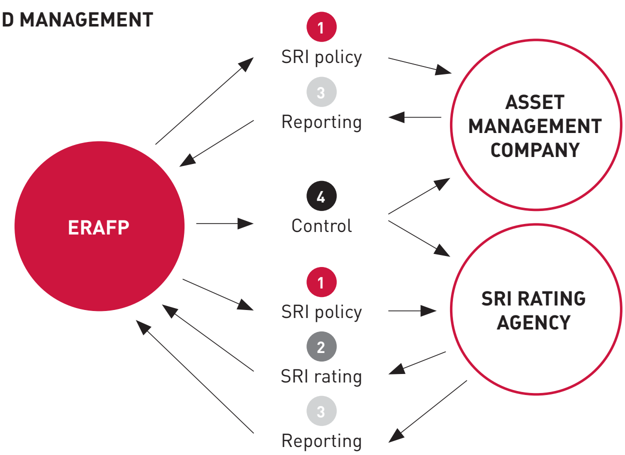
ERAFP holds six-monthly investment committee meetings with each of its delegated asset managers to discuss matters such as the mandates' SRI profile.

ROLES OF THE VARIOUS ENTITIES AND CONTROL PROCEDURES

FOR DIRECT BOND MANAGEMENT



FOR INDIRECT BOND MANAGEMENT



1 › **SRI policy**
- Definition of the investment policy
- Settlement of any differences in interpretation
- Decisions on changes to the charter and reference framework

2 › **SRI rating**
- Key SRI data for the managing institution
- Alerts

3 › **Reporting**
- Half-yearly reporting
- Regular reporting

4 › **Control**
- Monitoring of the application of SRI procedures, controls and any requests to adjust investments
- Review of annual reports (managers, agencies, committees, etc.)

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 benefits from sizeable net financial inflows (contributions, net of benefits paid, and investment income), which can be quite accurately forecast. While these factors give it a very long-term responsibility with regard to its beneficiaries, they also provide it with the resources to implement a commensurate investment policy. This obligation and its capacity to take a very long view are what make ERAFP strive to integrate environmental, social and governance criteria into its investment policy in as detailed a way as possible.

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:

› 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;
- 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 regulations (physical and transition risks).

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 countries need 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.

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 18 evaluation criteria adapted to the specific features of each category 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. The most important criteria (in bold in the table below) must therefore always be assigned the same value.

THE CHARTER'S 5 VALUES AND 18 CRITERIA

1 › Rule of law and human rights — Proposed criteria

- **Non-discrimination and promotion of equal opportunities**
- Freedom of opinion and expression and other fundamental rights
- **Responsible supply chain management**

2 › Social Progress — Proposed criteria

- **Responsible career management and forward-looking job strategy**
- Fair sharing of added value
- Improvement of working conditions
- Impact and social added value of the product or service

3 › Social democracy — Proposed criteria

- **Respect for union rights and promotion of labour-management dialogue**
- Improvement of health and safety conditions

4 › Environment — Proposed criteria

- Environmental strategy
- **Environmental impact of the product or service**
- Control of environmental impacts
- **Control of the risks associated with climate change and contribution to the energy transition**

5 › Good governance and transparency — Proposed criteria

- **Management — corporate governance**
- Protection and respect of customer/consumer rights
- **Fight against corruption and money laundering**
- Responsible lobbying practices
- Tax transparency and accountability

	PRE-	INVESTMENT	POST-
INVESTMENT PROCESS	Regulatory engagement 'Non-targeted' collaborative engagement	Rules for selecting investments/securities Targeted thematic investment	Control of compliance of investments Targeted shareholder engagement Voting at general meetings
EXAMPLES	IIGCC Policy Program Climate Action 100+	SRI system - SRI Charter - SRI benchmark criteria - best in class rules -decarbonisation Green bonds (EIB, Île-de-France, France) Thematic funds	*Ex post* control by Vigeo PRI Clearing House: supply chain social standards, tax optimisation, etc. Dialogue with oil sector companies on exploration and production activities in the Arctic through Mirova and with European electricity producers on their carbon strategy through IIGCC - Climate Action 100+ Dedicated voting policy; supporting shareholder resolutions, etc.

BEST IN CLASS AND ENGAGEMENT

As mentioned above, 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 issuers obtain for ERAFP's SRI criteria, the issuers 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 to define an eligible investment universe, it would preclude part of ERAFP's responsibility as well as an important lever available to it as a shareholder or creditor.

This is because ERAFP intends to be an active investor and, to that end, maintain dialogue or engage with the issuers in which it invests or with the authorities that define its investment framework. Accordingly, in 2012 ERAFP adopted shareholder engagement guidelines, which it updates yearly. They establish priority engagement themes for the year as well as the voting policy that ERAFP's delegated asset managers must apply at general meetings.

ERAFP's SRI strategy is summarised in the chart above.

CLIMATE ANALYSIS METHODOLOGY

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 facets of climate risk.

In particular, under the 'environment' value of ERAFP's SRI Charter, the ***Control of the risks associated with climate change and contribution to the energy transition*** criterion makes it possible to assess the commitments that issuers have made, the measures adopted and the tangible results 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, such as more stringent regulations, the introduction of carbon pricing, client and investor expectations and increased vigilance by civil society.

This criterion also makes it possible to assess the efforts made by issuers to anticipate and adapt to the ramifications and consequences of climate change.

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 applies a ***Control of environmental impacts*** criterion, making it possible to assess the commitments made by issuers regarding the protection of water, the preservation of biodiversity and the prevention of pollution risks.

Conversely, ERAFP's SRI environment value criterion relating to the ***Product or service's environmental impact*** 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 consolidated average scores for these criteria can be a way of gauging that portfolio's exposure to climate change-associated risks. Such an indicator is difficult to interpret, however, and does not facilitate the factoring in 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 transition risks associated with climate change has led investors to acquire specific monitoring tools. Measurement of a portfolio's ***carbon footprint, exposure to fossil fuels, 'green share', intensity of contribution to the climate transition, emissions avoided and energy mix alignment with a 2°C scenario*** are all examples of this approach. For this last forward-looking indicator, the results are based on assumptions and a methodology likely to evolve over time, and so must be interpreted with caution.

Complementing the *ex ante* view of the investment policy provided by the best in class approach and, primarily, the SRI ratings, climate analysis tools provide an ex post view of the allocation choices made.

› Measuring climate change-associated risks

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.

Since 2015, ERAFP has used the method that measures the investor's carbon 'risk', based on carbon intensity. This is also the method recommended by the TCFD.

	Measurement of the investor's carbon risk exposure
Calculation of carbon intensity as a weighted average	**At issuer level:** factoring in of carbon intensity, in terms of CO_2 per unit of either revenue (companies) or GDP (countries)
	Portfolio level aggregation: average carbon intensity of issuers weighted for their respective proportions of the portfolio
	Normalisation (unit): CO_2 emissions per unit of revenue (weighted average) or GDP

ERAFP's approach consists in considering that a portfolio's exposure to climate risk is reflected by the average carbon intensity (CO_2 emissions normalised by revenue) of its constituent companies or countries weighted by their respective weights in the portfolio. This measurement, while providing no information on indirect CO_2 emissions or those attributable to ERAFP's investments, circumvents the biases linked to the investor responsibility measurement[37] and can be applied to all asset classes. ERAFP therefore decided to use this approach in the context of this report.

Exposure to fossil fuels

The Paris agreement aims to limit the global temperature rise to well below 2°C and, even further, below 1.5°C by the end of the century, necessitating a 70% to 80% reduction in greenhouse gas emissions (GHG) by 2050 and zero emissions by 2100.

To limit global warming to 2°C, the energy sector must make drastic changes, as only a third of the world's fossil fuel reserves and resources can be burned[38] (70% of the world's fossil fuel resources must remain unused before 2050, i.e., 33.3% of oil resources, 50% of gas resources and more than 80% of coal resources[39]).

Industry experts refer to assets potentially subject to unexpected or premature impairment, devaluation or transformation into 'liabilities' as 'stranded assets'.

The exposure of ERAFP's portfolio and benchmark indices to these assets can be analysed through their exposure to extractive companies.

Extractive activities fall into the following categories: open-cast extraction of bituminous coal and lignite, underground extraction of bituminous coal, extraction of crude oil and natural gas, extraction of natural gas in liquid form, oil and gas well drilling, extraction of bituminous sands and oil and gas support activities (recognised under indirect emissions from other activities in the graphs on page 68 below).

37. The fact that the share of a company's CO_2 emissions attributable to an investor changes according to the company's capitalisation, level of debt or, more generally, financial structure, independently of these emissions, is one of the main biases.

38. Source: International Energy Agency.

39. Source: *The geographical distribution of fossil fuels unused when limiting global warming to 2°C*, Christophe McGlade & Paul Ekins, 2015.

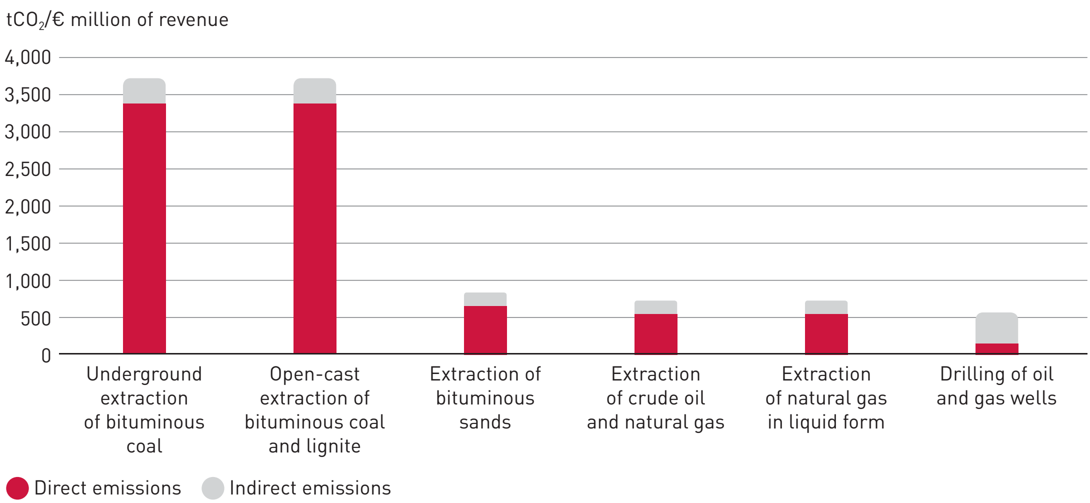
These different types of extraction have a more or less significant climate impact. In terms of tCO_2/€ million of revenue (excluding use), coal extraction emerges as the most polluting industry.

If one includes the use phase for these extractive industries, expressed in tCO_2/kWh, the gaps between the different types of energy diminish but coal remains the highest emitter of CO_2.

While consumption of fossil fuels is still widespread in today's economy, some seem more easily substitutable than others when it comes to use. In the electricity generation sector for example, replacing fossil fuels – coal in particular, which still represented nearly 40% of energy consumption in 2017[40] – with non-fossil-based energy represents the energy transition's first major challenge.

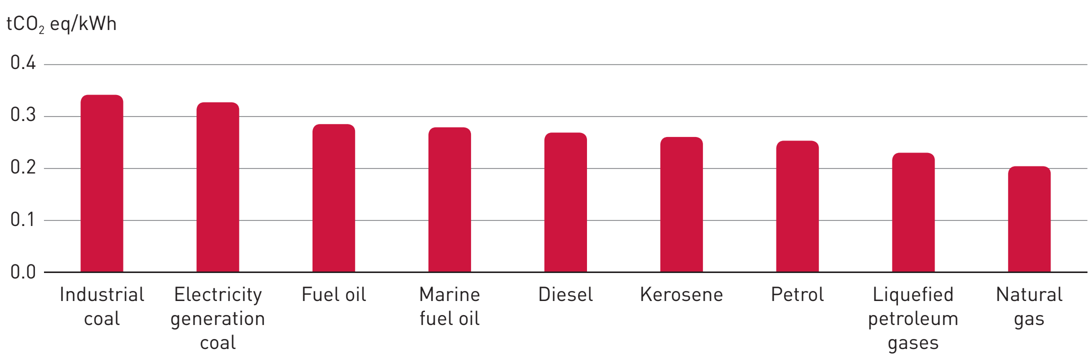
CARBON INTENSITY OF THE VARIOUS EXTRACTIVE SECTORS

Source: Trucost



EMISSIONS INCLUDING THE COMBUSTION OF VARIOUS FOSSIL FUELS

Source: Defra



40. https://webstore.iea.org/download/summary/2415?fileName=English-Coal-2018-ES.pdf

› Measuring climate change-associated opportunities

Analysis indicators for contribution to the energy transition and climate objectives

Unlike the analysis of carbon intensity, which is calculated for all of portfolio sectors, analysis of indicators of the contribution to the energy transition and climate objectives covers only part of the portfolio: sectors that are key for the climate, namely:

- utilities (electricity generation only);
- car manufacturing;
- passenger transport;
- goods transport;
- cement;
- steel;
- electrical equipment manufacturing;
- automotive equipment manufacturing;
- aluminium;
- oil and gas.

In order to continuously improve the approach for analysing the indicators of the contribution to the energy transition and climate objectives that ERAFP monitors, it calculated these indicators for both the portfolios and the related benchmark indices.

It also added the oil and gas sector to the list of key sectors for the climate in 2018.

Lastly, to round out and include more data in its assessment of the impact of its investments on the environment and its climate risk management, ERAFP analysed the carbon budget ratio and equivalent temperature of its equity and bond portfolios and their benchmark indices.

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 climate performance equal to that of green activities, as defined by the TEEC label (renewable energies, electric vehicles, etc.);
- 0% if the activity has an environmental performance corresponding to the average for its sector;
- between 0 and 100% if the performance is located between these two points on the scale.

Automotive sector example: each car maker's carbon intensity (gCO_2 eq/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 sectors studied.

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

Advantages of this method

› The use of physical indicators, which give an accurate picture of the company's climate performance, free from financial bias.

› By using a climate performance indicator graded from 0% to 100%, it can offer an overall assessment of an activity's climate performance that goes beyond a binary definition (0% or 100%) of a green activity, while remaining within the bounds of TEEC certification.

HOW DOES THE 2°C CARBON BUDGET RATIO WORK?

The SDA method explained

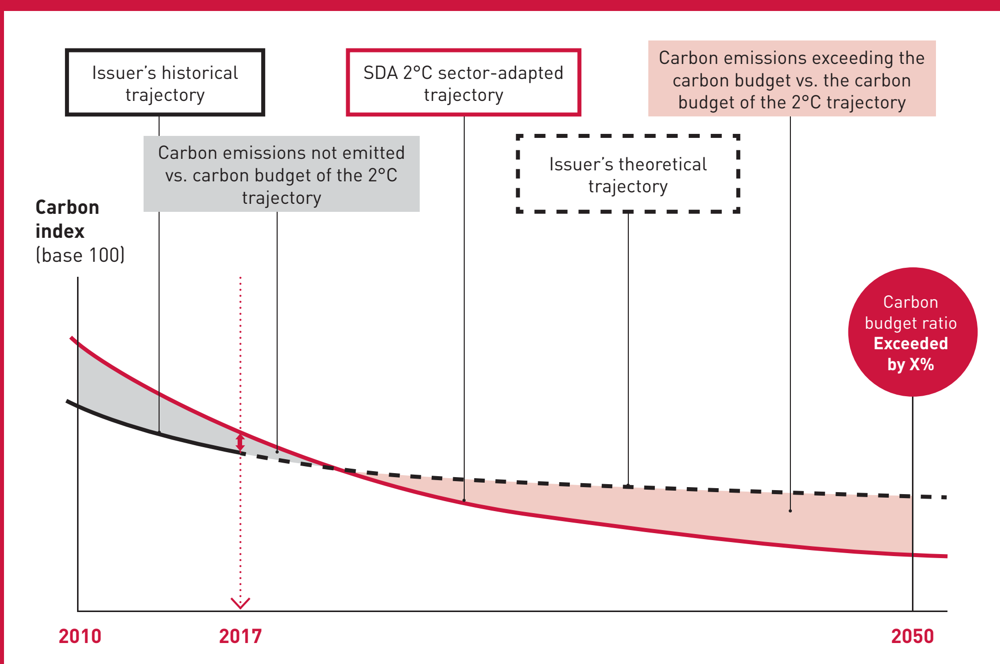
ERAFP uses the sectoral decarbonisation approach (SDA) methodological framework, the 2°C targets methodology recommended by the Science Based Targets (SBT) initiative[41].

The SDA methodology is based on application of the 2°C scenario of the International Energy Agency (IEA), which posits, for 13 business sectors, '2°C trajectories' between 2010 and 2050, including targets for absolute carbon intensity levels by 2050 (tCO_2/ unit of activity), as well as annual rates of reduction of that carbon intensity[42].

The '2°C carbon budget ratio' indicator assesses whether issuers' aggregate past and future emissions are in line with the greenhouse gas emissions trajectories required to stay below 2°C of global warming. This makes it possible to determine whether, over the period 2010-2050, issuers will have issued more or less than in a 2°C scenario.

BASIC PRINCIPLE FOR CALCULATING THE CARBON BUDGET RATIO

Source: I Care & Consult



41. SBT is an initiative led by the WWF, the UN Global Compact, the WRI and the CDP to engage businesses in 2°C alignment.

42. In 2018, the new SDA tools were applied to the transport sector. For the oil and gas sector, added this year, the 2°C alignment methodology was based on the overall primary energy supply mix in the sustainable development scenario published in the IEA's 2018 World Energy Outlook. The performance indicator used to calculate the alignment is the average emission factor (tCO_2/bbl).

A new 'equivalent warming temperature' indicator, which shows carbon budget overshoots against temperature increase estimates for 2100, makes it possible to simply gauge issuers' performance in relation to the objectives of 2°C or 1.5°C.

Advantages and limitations of the 'carbon budget ratio' indicator

Advantages

- The indicator is based mainly on 'physical' carbon intensity indicators such as gCO_2/KWh, which give a more accurate idea of issuers' actual carbon performance.
- The indicator is 'relative' in that it compares the issuer's performance with an objective performance within the same sector, which makes it possible to avoid stigmatising sectors that, while carbon intensive by nature, are nevertheless essential for the smooth functioning of the economy, whether in 2018 or 2050 (e.g. the electricity or cement sector). More specifically, the indicator reveals the impact of stock selection.
- The benchmark does not reflect companies' average performance but the performance expected for 2°C compatibility.
- The carbon budget ratio shows the remaining or exceeded carbon budget for each sector studied compared to a budget aligned with a 2°C scenario. It is based on an aggregate of issuers' past and future emissions. The indicator can thus be considered conservative insofar as a large proportion of issuers have not yet undertaken initiatives to meet the 2°C target.
- The methodological reference base used is external and well viewed in the market. It will be regularly updated in the coming years to ensure that analysis remains relevant.

Limitations

- The method covers only the SDA and oil and gas sectors and therefore only part of the portfolio.
- While the method is starting to take into account the carbon performance improvement objectives announced by companies, in order to ensure the objectives' credibility it only includes – to date – those approved by the Science Based Targets initiative, of which there are few as yet.
- A consensus has yet to materialise among issuers on SDA trajectories and the convergence principle.

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.

The green share of the automotive sector 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 ten sectors studied.
- **Unit:** average share of revenue corresponding to a green activity (definition specific to each sector).

While this 'green share' indicator allows us to identify a certain number of key technologies for the energy and environmental transition, on the downside it has technological biases and does not evaluate the issuer's overall climate performance.

Data providers

Since 2016, ERAFP has used Trucost, in partnership with I Care & Consult, Grizzly Responsible Investment and Beyond Ratings (the latter two of which merged in July 2018 under the name Beyond Ratings), to analyse the climate change-related risks and opportunities of its listed asset 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, meanwhile, is 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 partnership with Carbone 4 has made it possible to design a methodology for measuring and analysing these portfolios' exposure to climate change issues. The data collected for analysis in 2018 is still being refined.

MEASUREMENT OF EMISSIONS AVOIDED

- **At issuer level:** emissions avoided by a higher than average carbon performance for each sector – where possible a carbon performance defined based on physical indicators such as gCO_2 eq/Kwh, both for the issuer and the baseline scenario, should be used to avoid economic bias.
- **Allocation to the investor:** the emissions avoided by each issuer corresponding to the percentage held by the investor.
- **Aggregation at portfolio level:** sum of the CO_2 emissions avoided attributable to the investor.
- **Unit:** CO_2 emissions avoided per invested amount.

IMPLEMENTATION OF THE INVESTMENT POLICY

For ERAFP, which has been a fully socially responsible investor since inception, SRI provides a foundational framework for the implementation of its investment policy. Detailed portfolio analysis makes it possible to assess the results of this approach.

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 a third of the companies in the benchmark indices are excluded from its investment universe.

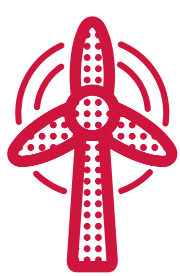
When available, the investment portfolio's climate change analysis is presented after the ESG rating. This analysis is based on the following indicators:

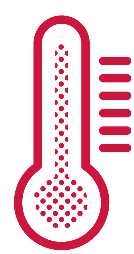
- carbon intensity;
- exposure to fossil fuels;
- green share;
- intensity of contribution to the climate transition;
- emissions avoided;
- carbon budget ratio;
- the portfolio's 'temperature'.

These indicators were analysed for all ERAFP's equity and bond portfolios. Exposure to fossil fuels, portfolio temperature and the carbon budget ratio were added this year. For these last two forward-looking indicators, the results are based on assumptions and a methodology likely to evolve over time, and so must be interpreted with caution.

Details are also provided on engagement initiatives and voting at shareholders' general meetings.

Given that the bigger the weight of an asset class is in ERAFP's overall portfolio the more relevant SRI management of the investment policy becomes, we carry out this cross-analysis less for diversification asset classes that are still being constructed or have a limited pool of securities.





IMPACT OF THE SRI APPROACH ON INVESTMENTS' FINANCIAL PERFORMANCE

The 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 reviews 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 state's public finances will be well managed.

Monitoring of the managers' performance since the launch of the first equity mandates in 2007 shows that, on average, they have created value, as ERAFP's equity portfolio has generated a quitely pronounced outperformance relative to its becnhmark index.

› 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.

Monitoring of the managers' performance since the launch of the first equity mandates in 2007 shows that, on average, they have created value, as ERAFP's equity portfolio has generated a quitely pronounced outperformance relative 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 corporate governance criteria should lead to the selection first and foremost of stocks of companies that use natural resources efficiently, seek to manage their human resources proactively and in a forward-thinking way and 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

At 31 December 2018, the bond portfolio (excluding convertible bonds) totalled €14,001 million at amortised cost, representing 54.0% of ERAFP's total assets. It was split between fixed rate sovereign and equivalent bonds (25.8% of total assets, or €6,685 million), inflation-indexed bonds (7.4%, or €1,904 million) and corporate bonds (20.9%, or €5,412 million).

At end-2018, the bond portfolio had generated unrealised capital gains equivalent to 12.7% of its amortised cost.

€14,001 million

at amortised cost

PUBLIC SECTOR BONDS

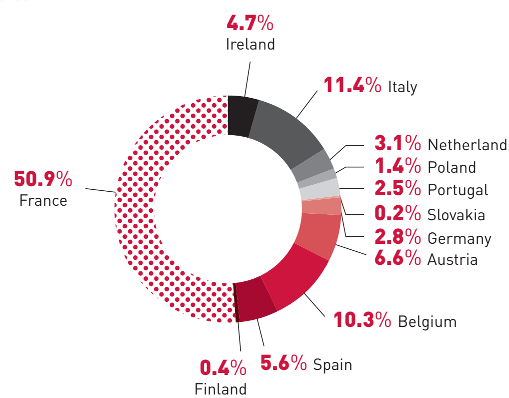
ERAFP manages all public sector bonds directly; their value at amortised cost at end-2018 was €8,589 million.

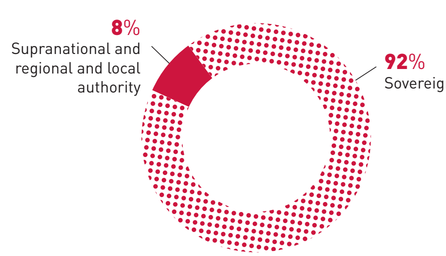
Sovereign bonds accounted for 92% of this portfolio, or around 31% of the Scheme's total investments. They include fixed rate and inflation-indexed bonds issued by euro-zone sovereigns as well as bonds guaranteed by these sovereigns, such as bonds issued by Kreditanstalt für Wiederaufbau, the German national development bank.

The other public sector bonds are issued by OECD local and regional authorities and supranational institutions.

BREAKDOWN OF PUBLIC SECTOR BONDS BY COUNTRY AND ISSUER TYPE AT 31 DECEMBER 2018 (AT AMORTISED COST)

Source: ERAFP





› SRI profile of public sector bonds

Sovereign bonds

All issuers in ERAFP's portfolio satisfy its SRI criteria, based on the Vigeo rating. 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 portfolio outperformed its benchmark index (1.2 compared with 0.6 in 2017).

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.

Local and regional authority bonds

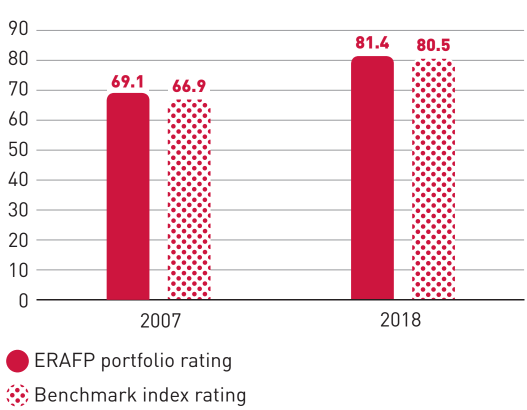
The average SRI rating of ERAFP's portfolio has increased considerably since 2008 and is now significantly higher than that of the benchmark index. This is due not only to an improvement in the SRI ratings of the local and regional authorities represented in ERAFP's portfolio but also to the sale in 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 reports on environmental, social and governance issues – which negatively impacts their SRI rating – but which nevertheless form part of the index. The portfolio's rating rose sharply between 2017 and 2018 (from 54.3 to 61.5) due in particular to the sale in 2018 of a line with a lower rating than the portfolio's average.

› Climate analysis of public sector bonds

The climate analysis was not carried out for local authority bonds due to a lack of available data.

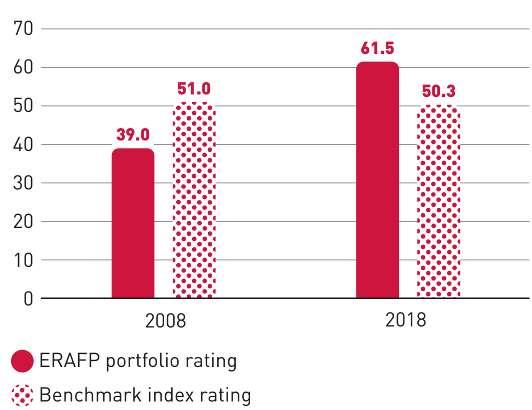
CHANGE IN THE AVERAGE SRI RATING OF THE SOVEREIGN BOND PORTFOLIO COMPARED WITH THAT OF THE INDEX

Source: Vigeo-Oekom



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

Source: Vigeo-Oekom



CLIMATE ANALYSIS OF PUBLIC SECTOR BONDS

The carbon intensity of ERAFP's portfolio is 4.1% lower than that of the benchmark index. 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.

Based on 2018 data at constant euro exchange rates, the portfolio held at 31 December 2018 performed 2.9% better than that at 31 December 2017 and 5.3% better than that at 31 December 2015.

› How is the equivalent temperature calculated for the sovereign bond portfolio?

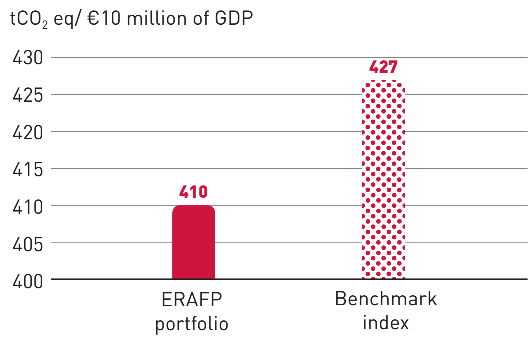
The portfolio's climate performance is represented by an equivalent temperature determined in relation to each country's target emissions, which in turn are based on nationally determined contributions (NDC)[44]. According to this methodology, the implied global temperature of the emissions targets, expressed as a weighted average of the countries that make up the portfolio, is **2.4°C.** This means that the emissions budgets set by the portfolio countries are 9% higher than the emissions budgets corresponding to an average global temperature increase of 2°C.

However, France, which accounts for half of the portfolio and has an estimated temperature increase of 1.9°C, is already aligned with a 2°C scenario.

The portfolio is also better positioned than the index, which exceeds the carbon budget by 27% with a temperature of 2.5°C.

CARBON FOOTPRINT OF ERAFP'S SOVEREIGN PORTFOLIO AT 31 DECEMBER 2018

Source: Beyond Ratings[43]



An equivalent temperature of 2.4°C for the sovereign bond portfolio.

43. 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.

44. CLAIM methodology developed by Beyond Ratings.

CORPORATE BONDS

› Euro-denominated corporate bonds

At the year-end, the 'euro credit' sub-portfolio, consisting of euro-denominated corporate bonds, totalled €4,661 million at amortised cost, representing 18.0% of ERAFP's total assets. Note that the euro credit managers also manage a part of the Scheme's cash and cash equivalents.

The euro-denominated corporate bond management mandates entrusted to Amundi, La Banque Postale AM and Ostrum AM notably include loan securitisation fund investments in the amount of €314 million (out of a total commitment of €465 million).

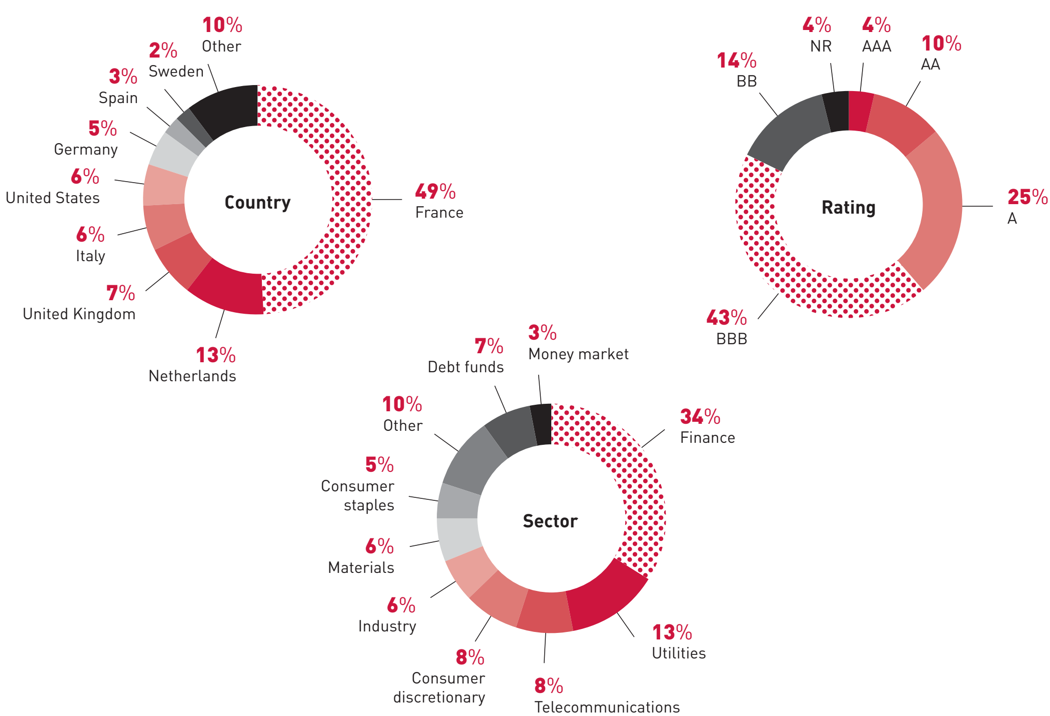
In addition to delegated management, which remains preponderant, since 2015 ERAFP has held shares in external subordinated debt funds – now valued at €60 million – with the objective of gaining exposure to a bond segment not covered by the mandates that requires active management. It has also invested €85 million in loan securitisation funds (with a total future commitment of €106 million), including the NOVO 1 and 2 funds previously held through the multi-asset mandate but which ERAFP took back on its balance sheet in 2018.

€4,661 million

at amortised cost

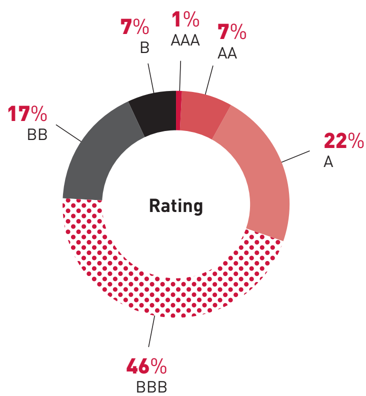
BREAKDOWN OF EURO-DENOMINATED CORPORATE BONDS BY SECTOR, COUNTRY AND RATING AT 31 DECEMBER 2018 (AT AMORTISED COST)

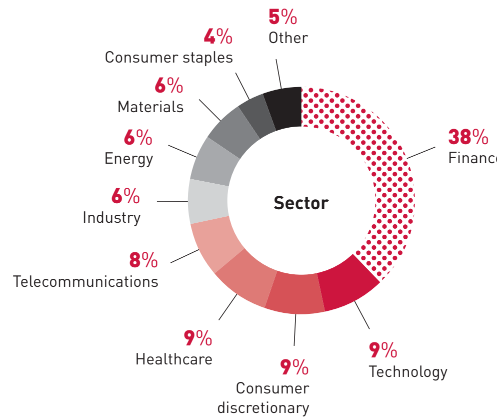
Source: ERAFP



BREAKDOWN OF US DOLLAR-DENOMINATED CORPORATE BONDS BY SECTOR AND RATING AT 31 DECEMBER 2018 (AT AMORTISED COST)

Source: ERAFP





› US dollar-denominated corporate bonds

The US dollar-denominated corporate bond sub-portfolio totalled €540 million at amortised cost at 31 December 2018, representing 2.1% of ERAFP's assets. This sub-portfolio was managed under a mandate awarded to AXA Investment Managers Paris.

› Emerging country corporate bonds

In 2018, ERAFP continued its policy of diversifying its bond investments into emerging country corporate debt funds denominated in hard currencies such as US dollar and euro, investing some €211 million, or 0.8% of its assets, therein.

THE ENERGY TRANSITION CHALLENGE IN EMERGING COUNTRIES

ERAFP invested €50 million in the largest emerging market green bond issue to date: *Amundi Planet Emerging Green One* (€1.42 billion in AUM). The fund results from a partnership between Amundi and IFC, a member of the World Bank group, aimed at encouraging the creation of a high-quality green bond market – complete with support measures for issuers and attractive returns for institutional investors.

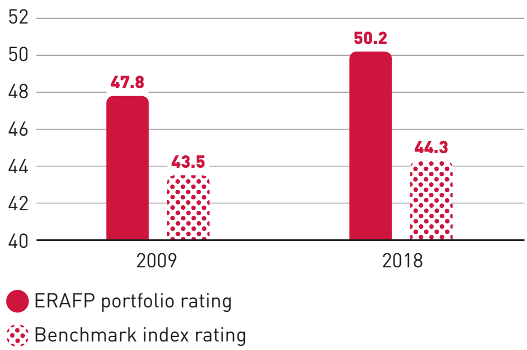
SRI PROFILE OF CORPORATE BONDS

› 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 current SRI rating of 50.2/100 stands 5.9 points above that of the index.

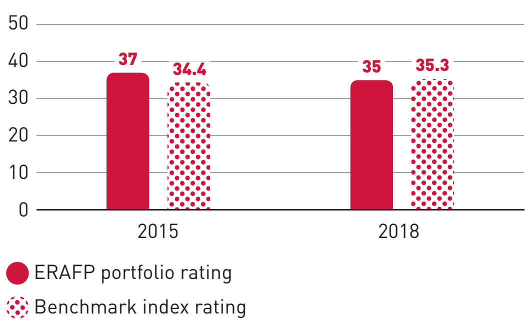
CHANGE IN THE AVERAGE SRI RATING OF THE EURO-DENOMINATED CORPORATE BOND PORTFOLIO COMPARED WITH THAT OF THE INDEX

Source: Vigeo



CHANGE IN THE AVERAGE SRI RATING OF THE US DOLLAR-DENOMINATED CORPORATE BOND PORTFOLIO COMPARED WITH THAT OF THE INDEX

Source: Vigeo



› US dollar-denominated corporate bonds

With regard to US dollar-denominated corporate bonds, the portfolio's SRI rating is virtually in line with that of its benchmark index, the gap with this index having narrowed compared with 2017. These results should be interpreted with caution, as:

- the index is composed wholly of investment grade securities, whereas ERAFP's portfolio is made up for around 25% of high-yield securities;
- the SRI performance of high-yield securities is lower than that of investment grade securities, mainly because they are less transparent;
- Vigeo's portfolio coverage rate 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 the exposure of portfolio companies to controversial practices potentially involving a breach of international standards;
- gradually improving the social, environmental and corporate governance practices of portfolio companies, notably by initiating dialogue with them wherever possible.

In addition, the implementation in 2016 of the new SRI benchmark led to a parallel fall in the portfolio's and benchmark's ratings for euro-denominated corporate bonds, but an increase in their respective ratings for US dollar-denominated bonds.

CLIMATE ANALYSIS OF CORPORATE BONDS

› Carbon footprint

In 2018, the corporate bond portfolio's carbon intensity, calculated as a weighted average, was 22% higher than that of the benchmark index (375 tCO_2 eq/€ million of revenue vs. 307 tCO_2 eq/€ million of revenue).

However, the portfolio's carbon intensity continues to improve (378 tCO_2 eq/€ million of revenue in 2017 and 423 tCO_2 eq/€ million of revenue in 2016), leading to a narrowing of the gap in relation to the index.

The performance gap is mainly attributable to the strong overweighting of utilities in the portfolio compared with the index (6.2% in the index vs. 13% in the portfolio), this sector emitting more greenhouse gases on average than other sectors, which automatically leads to a poor performance on the carbon intensity indicator.

Indeed, 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 climate analysis. However, the stock selection effect in this sector was positive, enabling the portfolio to outperform its benchmark index on the contribution to the energy transition indicators.

› Exposure to fossil fuels

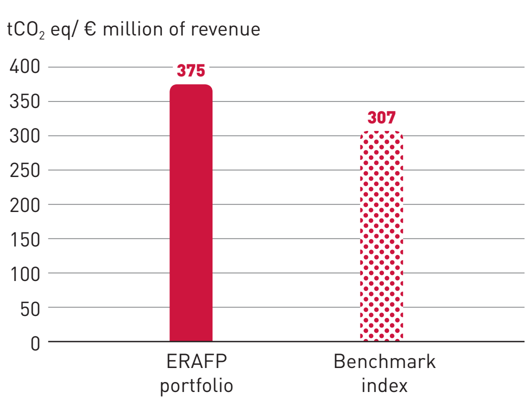
As explained above, to limit global warming to 2°C, the energy sector must make drastic changes as most of the global fossil fuel reserves and resources cannot be used. To estimate exposure to potentially stranded assets, an assessment was made of the portfolio's and its benchmark's exposure to extractive industries.

As a weighted average, the share of corporate bond portfolio revenue exposed to extractive industries is 1%. This low exposure is slightly better than that of its benchmark (1.1% of revenue as a weighted average). In terms of the type of extraction activities concerned, oil and natural gas account for more than 80% of this extraction, while coal, the energy with the highest emissions[45], accounts for 16% of energy extracted. The portfolio has no exposure to bituminous sands.

Exposure to fossil fuels 9% lower than that of the benchmark index.

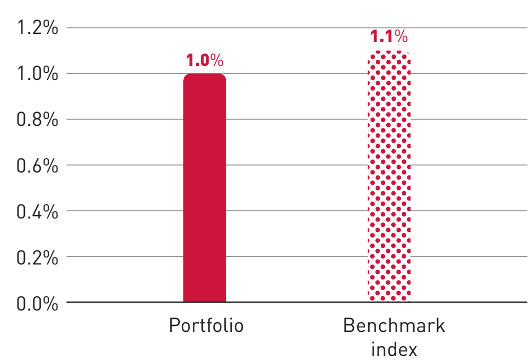
CARBON FOOTPRINT OF THE CORPORATE BOND PORTFOLIO AT 31 DECEMBER 2018

Source: Trucost



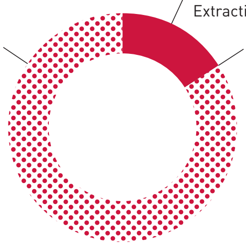
EXPOSURE OF THE CORPORATE BOND PORTFOLIO TO EXTRACTIVE INDUSTRIES AT 31 DECEMBER 2018 (IN REVENUE)

Source: Trucost



45. See page 68.

SECTOR DISTRIBUTION OF THE PORTFOLIO'S EXTRACTIVE REVENUE



› Contribution to the energy transition

For all sectors analysed[46], both the green share and the intensity of contribution to the climate transition are significant and have increased since last year (2017: green share of 10% and climate transition contribution intensity of 17%). The portfolio's outperformance on these two indicators relative to the benchmark (26% outperformance for green share and 109% for climate transition contribution intensity) was chiefly driven by the strong performance of utility sector companies, to which the portfolio is highly exposed.

Emissions avoided by the portfolio amount to approximately 893 tCO_2/year per € million invested. Again, most of them are attributable to the utilities sector. The ratio of emissions avoided per € million invested is more than three times higher than that of the index (232 tCO_2/year/€ million invested).

› 2°C alignment

EVALUATION OF THE ALIGNMENT OF THE CORPORATE BOND PORTFOLIO WITH A GLOBAL WARMING CAP OF 2°C (BY SECTOR)

Source: I Care & Consult and Grizzly

ERAFP's portfolio of corporate bonds

	2°C carbon budget ratio %	Equivalent temperature °C
Electricity generation	111%	2.2
Car manufacturing	97%	2
Goods transport	103%	2
Cement production	115%	2.2
Steel production	161%	2.9
Oil and gas	144%	2.7

Benchmark index

	2°C carbon budget ratio %	Equivalent temperature °C
Electricity generation	161%	2.9
Car manufacturing	108%	2.1
Goods transport	136%	2.5
Cement production	117%	2.3
Steel production	168%	3
Oil and gas	148%	2.7

INDICATORS OF CONTRIBUTION TO THE ENERGY TRANSITION FOR THE CORPORATE BOND PORTFOLIO AT 31 DECEMBER 2018

Source: I Care & Consult

Focus on key climate sectors	Green share %	Climate transition contribution intensity %	Emissions avoided tCO_2/€ million invested
Portfolio	12%	23%	893
Composite index	10%	11%	232
Difference between portfolio and benchmark index	*26%*	*109%*	*285%*

46. See section on key climate sectors on page 69, excluding the aluminium sector, in which there are no portfolio investments.

Carbon budget ratio

The 2°C alignment methodology presented herein follows a sector-based approach. It therefore seems relevant to study the results sector by sector, since each sector has its own carbon budget.

For the corporate bond portfolio, three sectors meet or almost meet the carbon budget aligned with a 2°C scenario for the period 2010-2050: electricity generation, car manufacturing and goods transport. This is mainly due to a static alignment of the portfolio's issuers, which is measured by their current carbon intensity and complies with the 2°C trajectory. However, the rate of reduction for the electricity generation and goods transport sectors is not strong enough today for them to comply fully, until 2050, with a carbon budget aligned with a 2°C trajectory. In terms of temperature, this results in global warming being limited to 2°C by 2100 for the car manufacturing and goods transport sectors and to 2.2°C for the electricity generation sector.

For the cement, steel and oil and gas sectors, which are generally less advanced in the transition than the sectors mentioned above tend to be, issuers have will have to make a significant effort to keep to their carbon budgets.

However, for all sectors studied, the carbon budget and the equivalent temperature are better than those of the index, showing in particular that the utilities stocks in the portfolio have been well chosen.

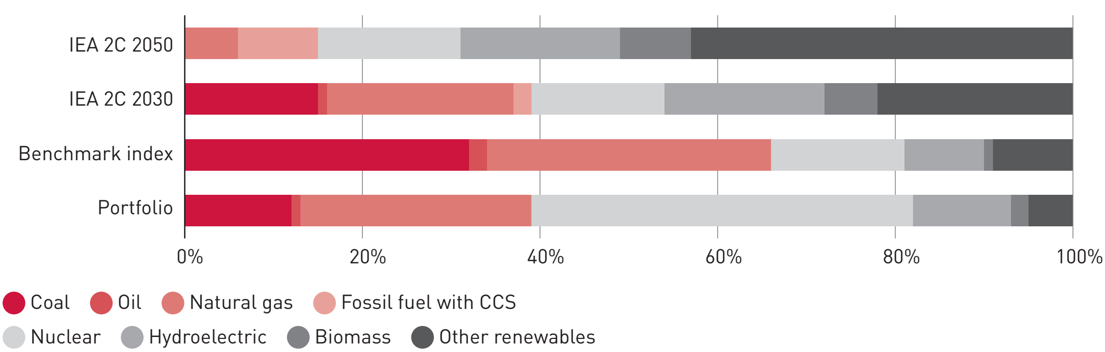
It should be noted that this carbon budget is largely based on historical carbon intensity data[47]. The aim of ERAFP's lobbying of companies to set themselves stringent reduction targets, notably through its participation in the Investor Decarbonisation Initiative and Climate Action 100+, is to improve this 2°C alignment over time.

Focus on the utilities sector

Analysis of the portfolio's electricity-generating companies makes it possible to assess how compatible their activities are with international climate objectives. From this perspective, the climate trajectories defined by the International Energy Agency (IEA) provide a very relevant basis for comparison as they break down the energy mix of the main countries and regions in a scenario limiting global warming to 2°C.

ENERGY MIX OF ERAFP'S EQUITY PORTFOLIO COMPARED WITH THE INTERNATIONAL ENERGY AGENCY'S SCENARIOS (IN FINANCED GWH)

Source: Trucost based on IEA scenarios



47. Although the reduction objectives for companies validated by Science Based Targets have been taken into account this year, these objectives still concern a very small number of issuers.

The first two lines of the graph illustrate the change needed in the global energy mix, by 2030 and 2050, for a marginalisation of fossil fuels and an increasingly important role for renewable energies. While these scenarios are based on higher availability of green technologies in the future (carbon storage, for example), this comparison shows the extent to which the consolidated portfolio's companies must change their energy mix to be in line with a 2°C scenario.

Analysis of the strategy of the portfolio's electricity-generating companies (change in the energy mix, deactivation of fossil fuel production units, etc.) therefore appears to be a priority to ensure that the portfolio is aligned with the political objectives of limiting global warming. ERAFP has been committed to this for a number of years through its position as an active investor engaging with issuers in this sector.

Although it consists simply of a snapshot at a given moment, comparison of the portfolio's energy mix (consolidated energy mixes of the portfolio companies that generate electricity) with the IEA's energy mix scenarios[48] for 2030 and 2050 provides an initial basis for reflection on the changes that ERAFP will need to factor into its bond investments in order to gradually align its portfolio with a 2°C scenario.

At the end of 2018, the proportion of fossil fuels in ERAFP's portfolio was already aligned with that advocated by the IEA for 2030. The share of coal and oil is already lower than the IEA's 2°C scenario for 2030 and the share of gas still needs to fall slightly (by 5%).

The proportion of renewable energies, on the other hand, will have to more than double in order to reach the target level for 2030.

The transition to much less carbon-intensive methods of power generation will need to accelerate from 2030 in order to achieve alignment with the 2050 target energy mix.

Whereas the overweighting of companies in the utilities sector has a negative impact on the portfolio's carbon footprint results, ERAFP's delegated asset managers have, on the other hand, prioritised companies in this sector that have a good performance in terms of their contribution to the energy transition and a relatively positive 2°C alignment.

48. Breakdown of current electricity generation by primary energy source; this breakdown is likely to evolve as, in particular, the investments that the various operators have agreed to make to reduce their fossil fuel dependency take effect.

THE CONVERTIBLE BOND PORTFOLIO

Put in place in 2012, the convertible bond mandates have been awarded to Schelcher Prince Gestion (Europe) and Lombard Odier Gestion (International). At 31 December 2018, the convertible bond portfolio totalled €671 million at amortised cost, representing 2.6% of ERAFP's total assets.

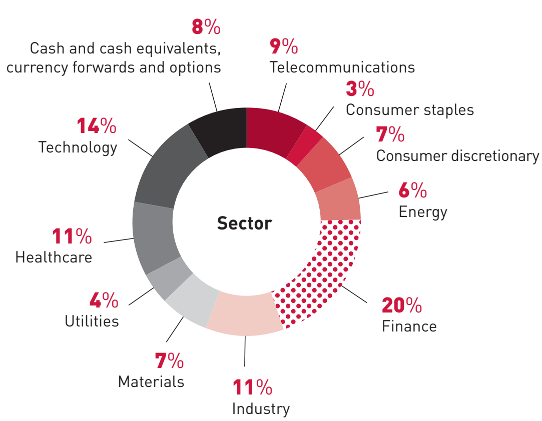
At the same date, it had generated unrealised capital gains equivalent to 4.7% of its amortised cost.

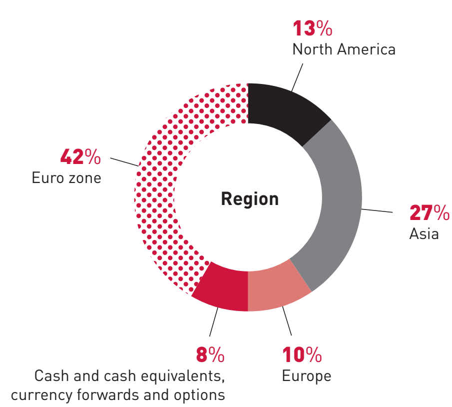
€671 million

at amortised cost

BREAKDOWN OF CONVERTIBLE BONDS BY SECTOR AND REGION AT 31 DECEMBER 2018 (AT MARKET VALUE)

Source: ERAFP





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.

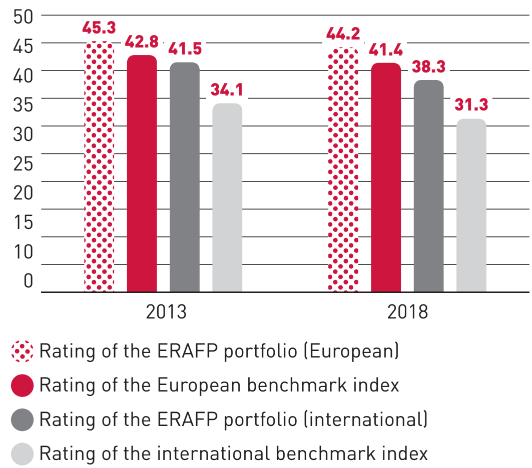
Both portfolios continue to outperform their respective benchmark indices, indicating that the best in class SRI strategy has been applied correctly in these two delegated management mandates.

The SRI performance of the European convertible bond portfolio improved compared with 2017 (44.2 in 2018 compared with 42.9 in 2017). On the other hand, the rating of the international convertible bond portfolio was down very slightly year on year (38.3 compared with 39.8 in 2017).

The rating difference between the European and international portfolios and the related trends 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.

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

Source: Vigeo



CLIMATE ANALYSIS

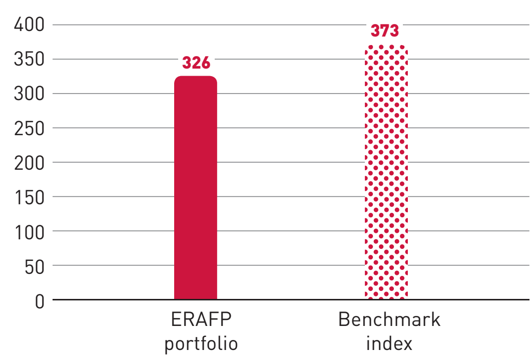
Given the characteristics of the asset class (limited pool of securities, low allocation weight of financial diversification function), calculation of a 2°C trajectory appears of little usefulness or relevance for the convertible bond portfolios. By way of illustration, however, their contribution to the energy transition is shown on page 87, and the measurement of their carbon footprint opposite.

› Carbon footprint

The result is presented on a consolidated basis for the two convertible bond portfolios – Europe and international. The consolidated convertible bond portfolio's weighted average carbon intensity was 13% lower than that of its benchmark index. The portfolio's carbon intensity has increased compared with the two previous years (262 tCO_2 eq/€ million of revenue in 2017), mainly due to the increased weight of the materials sector, which has high average emissions,

CARBON FOOTPRINT OF ERAFP'S CONVERTIBLE BOND PORTFOLIO AT 31 DECEMBER 2018

Source: Trucost



although this was offset by good stock selection relative to the benchmark index.

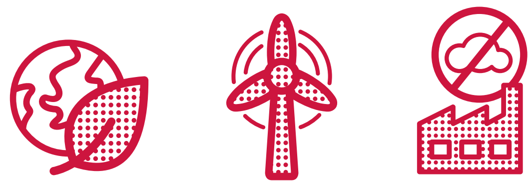
The portfolio's outperformance came mainly from good stock selection in the utilities and materials sectors. In addition, a slight overweighting of the industrial sector combined with effective selection of less carbon intensive stocks in that sector improved the total portfolio performance by 5.4%.

› Contribution to the energy transition

For all sectors analysed[49], the portfolio's green share came to 13%, approximately 22% lower than that of the benchmark index. The outperformance by the index is mainly due to that of the goods transport and steel sectors, although the number of issuers in these sectors for both the index and the portfolio is minimal (one or two stocks).

The portfolio's intensity of contribution to the climate transition was 20%, meanwhile – 12% higher than that of the benchmark index. This outperformance was mainly driven by a positive stock selection effect in the utilities and passenger transport sectors.

Lastly, emissions avoided by the portfolio amounted to approximately 373 tCO_2 eq/€ million invested, up significantly from last year (153 tCO_2 eq/€ million invested) and 127% higher than those avoided by the index. The overweighting of the utilities sector combined with effective selection of less carbon intensive stocks in that sector accounted for this outperformance.



INDICATORS OF CONTRIBUTION TO THE ENERGY TRANSITION OF THE CONVERTIBLE BOND PORTFOLIO AT 31 DECEMBER 2018

Source: I Care & Consult

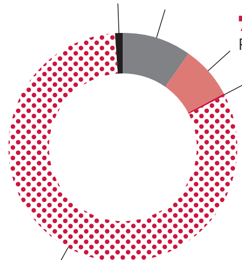
Focus on key climate sectors	Green share %	Climate transition contribution intensity %	Emissions avoided tCO_2/€ million invested
Portfolio	13%	20%	373
Composite index	17%	17%	164
Difference between portfolio and benchmark index	*-22%*	*12%*	*127%*

49. See key sectors for the climate on page 69, excluding car manufacturing and aluminium sectors (not represented in the portfolio).

THE EQUITY PORTFOLIO

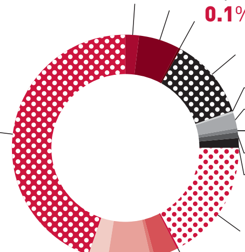
BREAKDOWN OF EQUITIES BY GEOGRAPHIC REGION AT 31 DECEMBER 2018 (AT AMORTISED COST)

Source: ERAFP



BREAKDOWN OF EUROPEAN EQUITIES BY COUNTRY AT 31 DECEMBER 2018 (AT MARKET VALUE)

Source: ERAFP



At 31 December 2018, the equity portfolio totalled €7,320 million at amortised cost, representing 28.3% of ERAFP's total assets. It was split between European equities (23.3% of assets, or €6,049 million) and international equities (4.9%, or €1,271 million).

At 31 December 2018, ERAFP had delegated the management of its equity portfolio, with the exception of direct investments in climate change reduction-themed funds (€99 million) and emerging country equity funds (€30 million).

As regards the rest of the portfolio, the two asset classes were split between 15 mandates, including 11 European equity mandates entrusted to Allianz GI, Amiral Gestion, Amundi, AXA Investment Managers Paris, BFT IM - Montanaro AM, Candriam, EDRAM, Mirova, Ofi AM and Sycomore AM (two mandates), and four international equity mandates entrusted to Natixis-Loomis and Robeco Institutional Asset Management (North America) and Comgest SA and Robeco Institutional Asset Management (Pacific region).

€7,320 million

at amortised cost

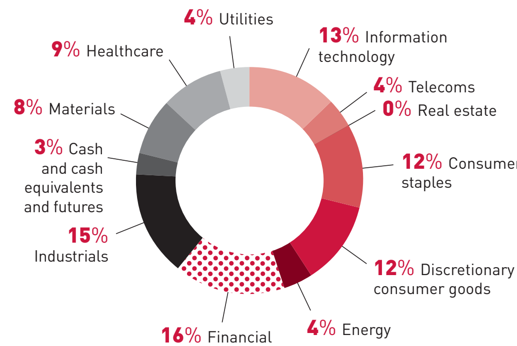
The equity portfolio had generated unrealised capital gains at end-2018 equivalent to 22.5% of its amortised cost, a decrease from 2017 in an unfavourable market context, particularly in the last quarter.

In terms of risk dispersion, the ten largest investment lines in the various European equity mandates represented 19.8% of the asset class at year-end, a lower percentage than that for the ten largest lines in the benchmark index at that date (27.1%).

The international equities asset class was slightly less concentrated: the ten largest investment lines represented 18.5% of the total. By contrast, the benchmark index was far more dispersed than the portfolio (12.0% in the ten largest lines).

BREAKDOWN OF THE EQUITY PORTFOLIO BY SECTOR AT 31 DECEMBER 2018 (AT MARKET VALUE)

Source: ERAFP



SRI PROFILE

In 2018, all the equity portfolios outperformed their respective benchmark indices from an SRI standpoint, except for the Pacific region equity portfolio (see page 90).

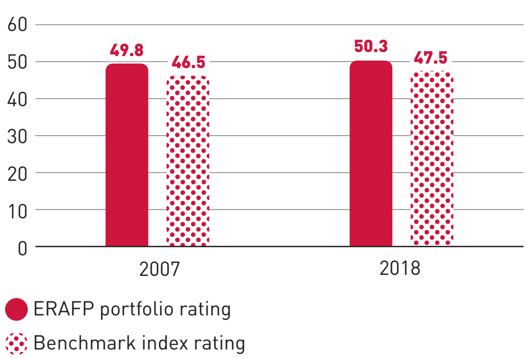
The performance of the euro-zone equity portfolio improved slightly in 2018 compared with 2017 (SRI rating of 50.3 vs. 49.5 in 2017) and exceeded that of the index by 2.8 points.

The euro-zone equity portfolio also outperformed its benchmark index in 2018 and performed better than in 2017 (46.7 in 2017 vs. 47.4 in 2018).

As for US equities, this portfolio outperformed its benchmark index for the third straight year, and the corresponding rating gap widened (2.4 points). This increase can be partly attributed to ERAFP's continuing efforts to maintain a dialogue with its delegated asset managers so that its guidelines and, more generally, its SRI expectations are duly taken into account.

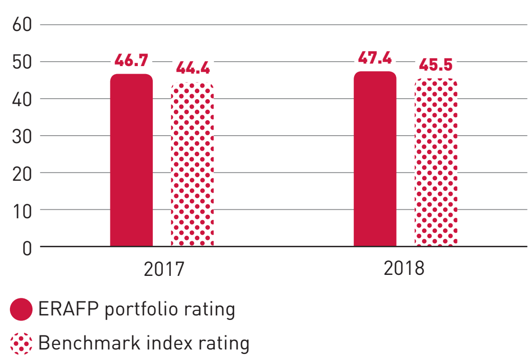
CHANGE IN THE SRI RATING OF THE EURO-ZONE EQUITY PORTFOLIO COMPARED WITH THE INDEX

Source: Vigeo



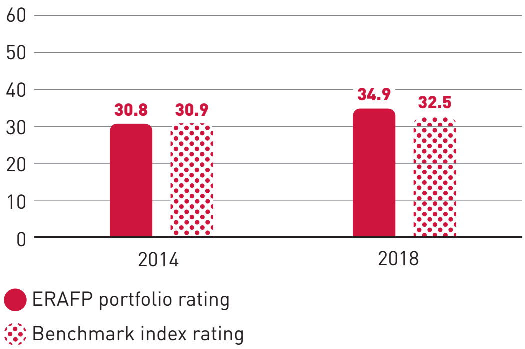
SRI RATING OF THE EURO-ZONE EQUITY PORTFOLIO COMPARED WITH THE INDEX

Source: Vigeo



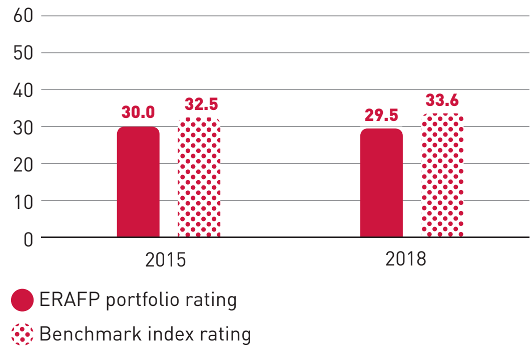
SRI RATING OF THE NORTH AMERICA EQUITY PORTFOLIO COMPARED WITH THE INDEX

Source: Vigeo



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

Source: Vigeo



Lastly, the Pacific region equity portfolio continued to underperform its benchmark index. This underperformance was mainly due to the fact that one of the two mandates invests in smaller companies for which the criteria are therefore less clearly specified.

In this case, the manager's management process relies heavily on dialogue with the portfolio companies to encourage them to be more transparent. At its regular meetings with the managers, ERAFP ensures that its expectations are fully taken into account.

CLIMATE ANALYSIS

› Carbon footprint

In 2018, the equity portfolio's carbon intensity, calculated as a weighted average, was 22% lower than that of its benchmark index (229 tCO_2 eq/€ million of revenue vs. 295 tCO_2 eq/€ million of revenue).

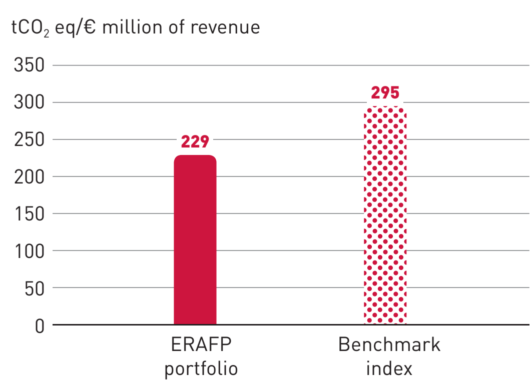
The portfolio's carbon intensity increased relative to 2017 and returned to its 2016 level (231 tCO_2 eq/€ million of revenue). The higher carbon footprint was mainly due to an increase in the weight of the high-carbon materials sector and a decrease in the weight of the industrials sector, which on average reduces carbon intensity. These changes were offset by a careful selection of securities in both sectors which, despite their unfavourable weighting, resulted in outperformance relative to the benchmark index.

This performance gap is mainly attributable to a slight underweighting in utilities combined with effective selection of less carbon intensive securities in that sector, which improved the portfolio's total performance by 13.9% relative to the benchmark index, or almost two-thirds of the total impact, across all sectors.

Moreover, the overweighting of the industrials and information technology sectors, the underweighting of the energy sector, and effective selection in the materials sector also contributed to the portfolio's outperformance of its benchmark index.

CARBON FOOTPRINT OF THE EQUITY PORTFOLIO AT 31 DECEMBER 2018

Source: Trucost



› Exposure to fossil energies

In order to estimate exposure to potentially stranded assets, the exposure of the portfolio and its benchmark index to extractive industries was assessed.

The proportion of revenue exposed to extractive industries in the equity portfolio, as a weighted average, was 0.8%. This low exposure was slightly better than that of its benchmark index (1% of revenues as a weighted average). In terms of the type of extraction activities, oil and natural gas accounted for nearly 80% of extraction, while coal, the most emitting energy[50], represented only 3% of the extracted energies. The portfolio had virtually no exposure to oil sands.

› Contribution to the energy transition

The indicators of contribution to the energy transition were positive for all sectors analysed[51] and the portfolio's performance was higher (with the exception of emissions avoided where it was slightly lower) than that of the benchmark index.

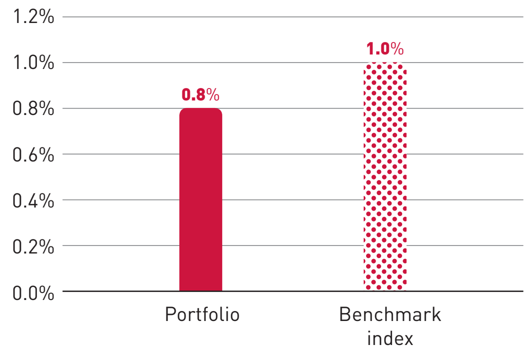
The portfolio's average green share was 13%, approximately 22% higher than that of the index.

The portfolio's intensity of contribution to the climate transition was 17%, representing a difference in relation to the index of around 23%.

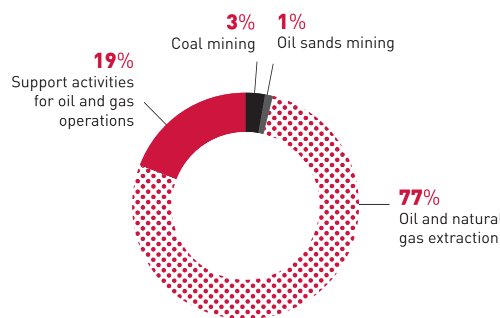
Both these indicators improved relative to 2017 (11% for the green share and 13% for intensity of contribution to the climate transition).

EXPOSURE OF THE LISTED EQUITY PORTFOLIO TO EXTRACTIVE INDUSTRIES AT 31 DECEMBER 2018 (IN REVENUE)

Source: Trucost



DISTRIBUTION BY SECTOR OF THE PORTFOLIO'S EXTRACTIVE REVENUE



INDICATORS OF CONTRIBUTION TO THE ENERGY TRANSITION OF THE EQUITY PORTFOLIO AT 31 DECEMBER 2018

Source: I Care & Consult

Focus on the core sectors for climate	Green share %	Intensity of contribution to the climate transition %	Emissions avoided tCO_2/€ million invested
Portfolio	13%	17%	492
Composite index	11%	14%	549
Portfolio vs. benchmark	*22%*	*23%*	*-10%*

50. See page 67.

51. See the core sectors for climate presented on page 69, excluding the steel and aluminium sectors not present in the portfolio.

The portfolio's outperformance for the green share and intensity of contribution to the climate transition indicators was mainly driven by the good performance of the electricity and passenger transport sectors (issuers in the rail sector, in particular).

Emissions avoided by the portfolio, at around 492 tCO_2 eq/€ million invested, were almost exclusively attributable to the electricity sector. However, the underweighting of this sector in the portfolio relative to the benchmark index negatively impacted the portfolio, which had a lower level of emissions avoided than the index despite an increase in emissions avoided compared with 2017 (317 tCO_2 eq/€ million invested).

› 2°C alignment

EVALUATION OF THE ALIGNMENT OF THE EQUITY PORTFOLIO WITH A GLOBAL WARMING CAP OF 2°C (BY SECTOR)

Source: I Care & Consult

ERAFP's equity portfolio

	2°C carbon budget ratio %	Equivalent temperature °C
Electricity production	75%	1.6
Car manufacturers	107%	2.1
Passenger transport	143%	2.6
Goods transport	110%	2.1
Cement production	98%	2.0
Oil and gas	152%	2.8

Benchmark index

	2°C carbon budget ratio %	Equivalent temperature °C
Electricity production	117%	2.3
Car manufacturers	119%	2.3
Passenger transport	154%	2.8
Goods transport	130%	2.4
Cement production	106%	2.1
Oil and gas	148%	2.7

Carbon budget ratio

The 2°C alignment methodology shown here is based on a sector approach. It is therefore appropriate to review the results on a sector basis as each sector has its own carbon budget.

For the equity portfolio, four sectors reach or come close to the carbon budget aligned with a 2°C scenario for the 2010-2050 period: electricity production, car manufacturers, goods transport and cement production. The electricity production sector is particularly well-positioned for the portfolio, with a carbon budget 15% lower than the carbon budget of the 2°C trajectory.

For the passenger transport (including airlines) and oil and gas sectors, which are generally less advanced in the transition than the electricity production and car manufacturers sectors for example, issuers must still make significant efforts to comply with their carbon budget.

Nevertheless, for all sectors studied except oil and gas, where the portfolio's performance was slightly lower than that of the index, the carbon budget – and the associated temperature – was better than that of the index. This further demonstrates the relevance of the selection of securities, particularly for the utilities sector, in the portfolio.

This carbon budget is largely based on past carbon intensity data[52]. The aim of the work undertaken with the companies to ensure that they set strict reduction targets, particularly via ERAFP's participation in the Investor Decarbonisation Initiative or Climate Action 100+, is to improve this 2°C alignment over time.

52. Even though the reduction targets for companies validated by Science Based Targets were taken into account in 2018, these targets still concern a very small minority of issuers.

Focus on the utilities sector

An analysis of the portfolio's electricity-generating companies makes it possible to establish the compatibility of their activities with international climate objectives. From this perspective, the climate trajectories defined by the International Energy Agency (IEA) appear to be a very relevant point of comparison, as they break down the energy mix of the main countries and regions in a scenario limiting global warming to 2°C.

As with the corporate bond portfolio, at the end of 2018 the proportion of fossil fuels in ERAFP's equity portfolio was already aligned with that advocated by the IEA for 2030: the proportions of coal and gas were already lower than the IEA's 2°C scenario for 2030. The proportion of oil should decrease by 2%.

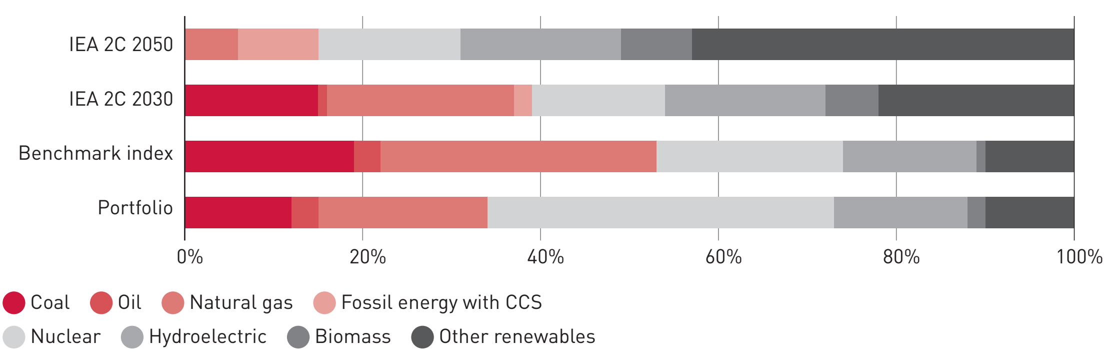
The proportion of renewable energies, on the other hand, will have to nearly double in order to reach the target level for 2030.

The transition to much less carbon-dependent methods of power generation will need to accelerate after 2030 in order to achieve alignment with the 2050 target energy mix.

This portfolio's excellent performance relative to its benchmark index on climate analysis indicators (carbon intensity, green share, intensity of contribution to the climate transition and carbon budget ratio) is mainly attributable to excellent selection of stocks in the main core sectors for the climate, in particular utilities (electricity production).

ENERGY MIX OF ERAFP'S EQUITY PORTFOLIO COMPARED WITH THE IEA'S SCENARIOS (IN GWH FINANCED)

Source: Trucost based on IEA scenarios



THE DIVERSIFICATION 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 2018.

At 31 December 2018, the multi-asset fund totalled €698 million at amortised cost, representing 2.7% of ERAFP's total assets. It had generated unrealised capital gains equivalent to 9.9% of amortised cost, down from 2017. The fund was impacted by the under-performance of Japanese and emerging countries' equities and in the clean energy and water themes.

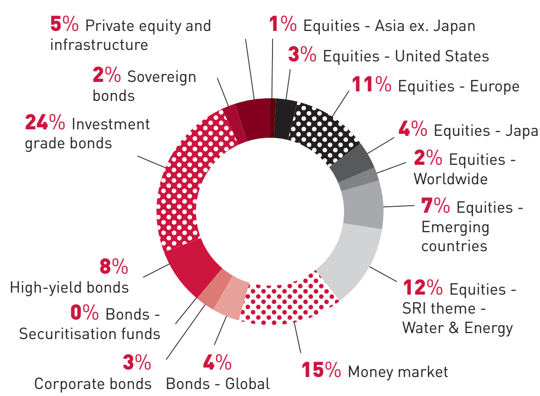
SRI PROFILE

ERAFP has developed specific rules for applying its SRI criteria to the management of multi-asset funds. It decided that the SRI eligibility of funds available for 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; or
- an analysis of the fund's SRI quality based on the SRI rating of each issuer represented in the fund.

BREAKDOWN BY ASSET CLASS AT 31 DECEMBER 2018 (AT AMORTISED COST)

Source: ERAFP



THE PRIVATE EQUITY AND INFRASTRUCTURE PORTFOLIO

ERAFP uses two delegated management methods to invest in unlisted private equity and infrastructure assets.

Starting in 2015, it began to make direct investments in mutual funds, which at end-2018 amounted to:

- €226 million in private equity funds (of which €123 million called);
- €155 million in infrastructure funds (of which €92 million called), including €50 million dedicated exclusively to the energy transition.

Since 2017, ERAFP has awarded unlisted asset management mandates in the following amounts:

- €230 million in the dedicated private equity fund managed by Access Capital Partners, which has already made €170 million of commitments (of which €68 million called);
- €200 million in the dedicated infrastructure fund managed by Ardian France, which has already made €147 million of commitments (of which €29 million called).

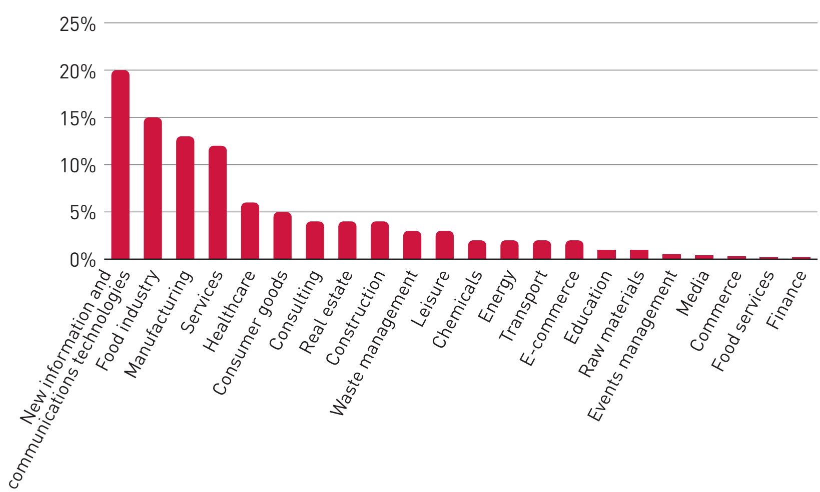
The amounts invested in the unlisted portfolio at 31 December 2018 therefore totalled €312 million (with ERAFP having committed €811 million in total), of which:

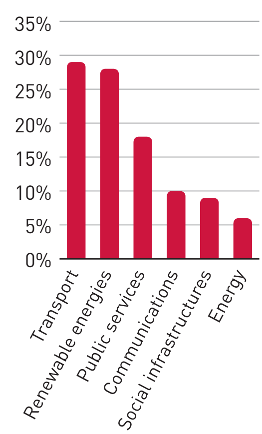
- €191 million in private equity assets (€456 million committed by ERAFP);
- €121 million in infrastructure assets (€355 million committed by ERAFP).

In terms of initiation of the portfolio's expansion, the share of unrealised capital gains is limited, standing at 0.6% of assets at amortised cost.

RÉPARTITION SECTORIELLE AU 31 DÉCEMBRE 2018 DES FONDS DE CAPITAL-INVESTISSEMENT ET D'INFRASTRUCTURES

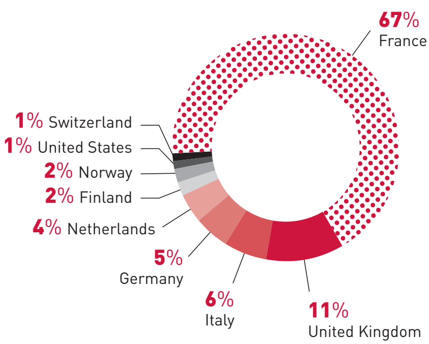
Source: ERAFP

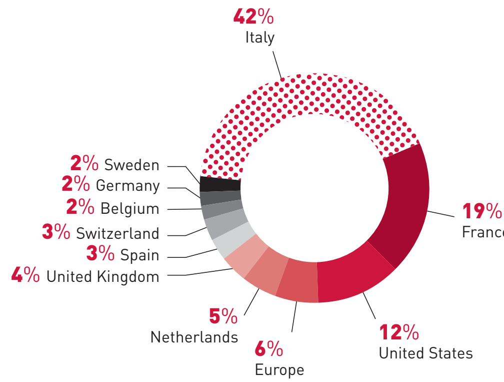




GEOGRAPHIC BREAKDOWN OF PRIVATE EQUITY AND INFRASTRUCTURE FUNDS AT 31 DECEMBER 2018 (AT AMORTISED COST)

Source: ERAFP





SRI PROFILE

In connection with its unlisted asset management mandate investments, ERAFP has developed SRI criteria for investing in private equity and infrastructure assets. The aim of these criteria is to adapt to the specific features of these asset classes while applying the five values of ERAFP's SRI Charter. Each criterion adapts the best in class principle to the specific features of the asset class by incorporating a dynamic approach consistent with the investments' lifespan. Practically speaking, this means using the investment as a lever to encourage improvement in practices. Particular attention is also paid to managing the reputational risk arising from any controversial practices associated with portfolio companies or projects.

As the delegated asset managers invest mainly through mutual funds, SRI analysis is based on two aspects:

- the SRI management process implemented by the target fund;
- ESG assessment and monitoring of portfolio lines in relation to ERAFP's SRI criteria.

In 2018[53], all the managers selected for ERAFP's private equity fund signed ERAFP's delegated asset manager ESG clause. 18% of the management companies provide an ESG report and 38% are signatories to the PRI.

In addition, managers are assessed on the basis of the ESG reporting of the companies in the underlying funds and their ability to meet the ESG criteria identified within the companies. Based on these criteria, the average ESG rating of the managers of the underlying funds in the portfolio is 7.1/10 (based on the assessment of the delegated asset manager of ERAFP's private equity portfolio).

In terms of infrastructure investments, all the managers selected by the delegated asset manager of ERAFP's portfolio have a responsible investment policy. Three-fourths of them are signatories to the PRI.

53. Based on 2017 data.

THE REAL ESTATE PORTFOLIO

ERAFP's real estate portfolio comprises six diversified SRI asset management mandates:

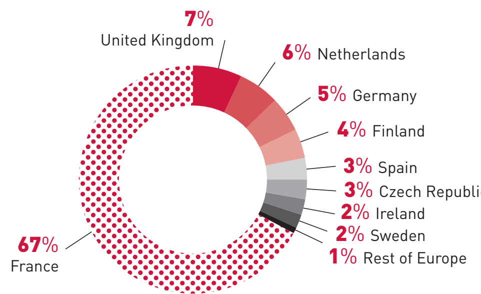
- four French real estate mandates, two of which are managed on a diversified basis by AEW Ciloger (including ERAFP's headquarters building), one by La Française REM, and one in the residential real estate sector by Ampère Gestion;
- two European real estate mandates, one managed by AXA Real Estate IM SGP and the other by LaSalle IM.

At 31 December 2018, the real estate portfolio totalled €2,558 million at amortised cost, representing 9.9% of ERAFP's total assets. Unreleased commitments of €520 million, pending future deliveries of buildings and cash calls by the mutual funds currently in the investment phase, can be added to this amount. The share of the portfolio's unrealised capital gains increased in 2018, representing 4.5% of its amortised cost, despite the sustained pace of ongoing acquisitions, while the related costs negatively impacted asset yields.

The real estate portfolio committed to investing €60 million in the intermediate housing fund.

BREAKDOWN BY GEOGRAPHIC REGION AT 31 DECEMBER 2018 (IN EXPOSURE, AT AMORTISED COST)

Source: ERAFP



Note: Includes indirect exposure to Italy and Norway

€2,558 million

at amortised cost

SRI PROFILE

ERAFP has developed a demanding and innovative SRI process for real estate assets, adapting the five values of its SRI Charter to this 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 features of the real estate asset class by incorporating a dynamic approach consistent with the investments' lifespan. In practical terms, this is reflected in a dual SRI performance dimension for the real estate concerned:

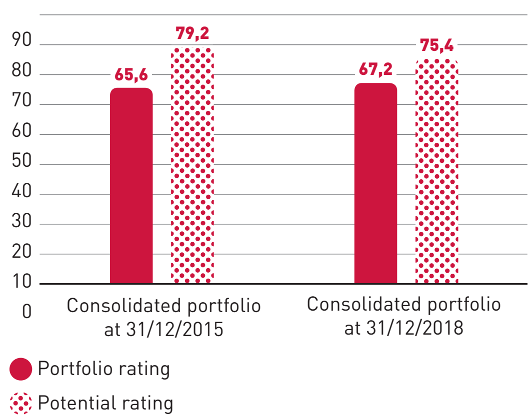
- a relative performance that compares the extra-financial characteristics of these buildings and their management (lease, use, maintenance) with other buildings of the same type (same usage and type of construction, equivalent location);
- a dynamic performance that aims to raise each asset to best in class status, using a potential SRI rating estimate at the date of acquisition.

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

In 2018, the consolidated portfolio's rating increased. This was mainly due to the inclusion in the assessment scope of the portfolio whose investment target is intermediate housing for which off-plan property has a good average SRI performance at the time of acquisition. The potential rating is stable (up 0.2 points), with the property retaining significant increase potential.

Most of the real estate assets in ERAFP's portfolio are certified to standards of minimum environmental and social performance. The certifications obtained or pending are mainly BRE *Environmental Assessment Method* (BREEAM), High Environmental Quality (HEQ) and NF Habitat.

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



ENGAGEMENT STRATEGY

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 among the participants;
- the sharing of best practices among investors is easier.

During the year, the general meeting is an important opportunity for dialogue between a company and its shareholders, who must express their opinion directly on a number of agenda items.

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

Moreover, in revising its SRI Charter in 2016, ERAFP sought to formally strengthen its positioning as an engaged investor. The new SRI Charter explains that *"ERAFP is determined to support, on a long-term basis, those organisations in which it has decided to invest, by exercising its responsibilities as shareholder or stakeholder in such a way as to sustainably promote, within these entities, practices that respect the values it supports."*

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, at the G7 summit, ERAFP lobbied in support of:

- ongoing efforts by governments to support and implement the Paris Agreement, including by updating and strengthening nationally determined contributions;
- channelling investments more quickly towards the low-carbon transition;
- a commitment to improving climate-related financial reporting frameworks.

Asserting these positions and contributing analysis articles in publications aimed at policymakers are part of the same promotion effort.

With the implementation of ERAFP's new SRI Charter, ERAFP's delegated asset managers closely monitor controversial practices to which issuers may be exposed. As part of a shareholder engagement process, ERAFP's delegated asset manager initiates dialogue with companies that are involved in proven breaches of international standards or have weak environmental, social or governance practices.

COLLABORATIVE INITIATIVES

In 2018, ERAFP continued its engagement initiatives on a number of environmental, social and governance themes, through collaboration or via various investor networks and platforms, including:

- the United Nations Principles for Responsible Investment (PRI) on the topics of working conditions in the agricultural supply chain, the fight against aggressive tax avoidance practices and the transition related to climate change in the oil and gas sector;
- Mirova, Natixis Asset Management's dedicated responsible investment subsidiary, on the topics of hydrocarbon exploration in the Arctic region and environmental and social issues in the supply chain of the textile and IT industries;
- Interfaith Center on Corporate Responsibility (ICCR) on the topic of human rights in the textile sector's supply chain;
- ShareAction, led by the Climate Group and the Carbon Disclosure Project, which encourages listed companies to define their carbon emissions targets in line with a 2°C scenario, based on the Science Based Targets initiative. The measures proposed to companies to reduce their emissions include eventually purchasing 100% renewable electricity and increasing their energy efficiency and electric vehicle fleet;
- Institutional Investors Group on Climate Change (IIGCC)/Climate Action 100+, which aims to encourage European companies in the utilities and automotive sectors to implement strategies to significantly reduce greenhouse gas emissions, develop a strong governance framework that takes into account the risks and opportunities related to climate change, and improve reporting in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

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

1. Fight against climate change
- IIGCC/Climate Action 100+
- Mirova
- RE100/ShareAction

2. Prevention of social risks in the supply chain
- PRI
- Mirova
- ICCR

3. Promoting best governance practices globally, particularly in Asia
- Global Asset Owners Forum
- Asian Corporate Governance Association (ACGA)

4. Fight against aggressive tax avoidance practices
- PRI

In 2018, ERAFP joined the Asian Corporate Governance Association (ACGA), which aims to improve governance practices at Asian companies. Given the weak corporate governance practices in Asia, the potential to improve practices via shareholder engagement activities and ERAFP's exposure through two equity mandates, ERAFP felt it was appropriate to join this association.

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 initiative coordinators organise meetings with willing issuers in order to explain the expected level of transparency and the best practices in their sector, and to discuss the issuers' intended action plans for the coming years.

In 2018, ERAFP engaged in dialogue with several companies through the various collaborative initiatives mentioned above.

The initiative coordinators organise meetings with willing issuers in order to explain the expected level of transparency.

In 2018, ERAFP also supported several investor statements:

- ERAFP signed the investor statement supporting a just transition[54]. Investors agree to incorporate social aspects into their fight against global warming by following the recommendations of the Climate Change and Just Transition guide for investors published by several academics in partnership with the PRI[55];
- ahead of COP24, ERAFP signed the investor statement regarding companies in the utilities sector. The statement calls on companies in the sector to define transition plans aligned with the Paris Agreement and 1.5°C warming. It also requires clear and constructive political signals in support of investments in low-carbon infrastructure as well as broader adoption of a carbon price to facilitate the low-carbon transition[56];
- ahead of the Shell shareholders' meeting, ERAFP signed a letter asking companies in the oil and gas sector to clarify their strategy for a low-carbon world, compatible with the objectives of the Paris Agreement[57];
- ERAFP also signed an investor statement regarding corporate lobbying on climate change, which was supported by the IIGCC. Among other things, it requires greater transparency by companies about their lobbying, a single message ensuring that their position on climate is aligned with commitments made on their behalf or with their support, and lobbying aimed at an alignment with the objectives of the Paris Agreement[58].

In 2018, ERAFP's delegated asset managers also carried out engagement activities on its behalf[59].

54. https://www.rafp.fr/actualite/changement-clmatique-et-transition-juste
55. https://www.unpri.org/download?ac=5668
56. http://www.iigcc.org/files/publication-files/Investor_expectations_of_the_power_sector_-_20.12.18.pdf
57. https://www.ft.com/content/fda63c26-5906-11e8-b8b2-d6ceb45fa9d0
58. https://www.iigcc.org/download/investor-expectations-on-corporate-lobbying-on-climate-change
59. The results presented in the table below concern engagement relating to the equity, corporate bond and convertible bond portfolios.

Type of engagement	Number of companies
Direct engagement	291
Engagement via a collaborative initiative	67
Engagement via a collaborative initiative with a leadership role	21%
Engagement theme	**Breakdown by engagement theme**
Environment	33%
Social	21%
Governance	16%
ESG	30%
Number of companies having made a formal commitment to change following the shareholder engagement procedure	63

Management companies address environmental themes the most, even though 30% of exchanges cover both environmental, social and governance themes. The number of both direct and collaborative engagements increased relative to last year (230 companies had direct engagement and 50 had collaborative engagement in 2017), with the management companies implementing ERAFP's engaged investor policy.

Moreover, the number of companies that have made a formal commitment to change or have already made changes following such a commitment increased slightly compared with 2017 (61 companies in 2017). Generally speaking, the results of engagement are measured over the medium term, which means that more time is needed for the commitment made by managers to have its desired effect.

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 learn lessons from each general meeting season and thereby gradually improve the policy's consistency and comprehensiveness.

Although this policy is implemented by the companies that manage equity mandates on its behalf, ERAFP ensures its correct interpretation and the consistency of the positions expressed by coordinating voting by its delegated asset managers for a number of companies. In 2018, this sample comprised 40 major French companies and 20 major international companies.

For the 40 French GMs that ERAFP monitors in depth, the average rate of shareholder opposition to management-proposed resolutions was low (around 6%) and generally in line with previous years.

In this, the fifth year of *'Say on Pay'* in France, for our sample the average rate of shareholder opposition to corporate officer remuneration resolutions remained stable relative to last year but increased relative to 2016 (90% approval rate in 2016 compared with 87% in 2017 and 87% in 2018); over the same period, however, the average total pay of chief executives decreased slightly from €4.8 million to €4.5 million.

In 2017, the Sapin II law was implemented. In addition to the now mandatory[60] consultative voting on remuneration due and awarded for companies that adhere to the legally binding AFEP-MEDEF code, an obligation has been introduced requiring all companies listed on a regulated market to hold a binding vote on the remuneration policy for each upcoming financial year.

60. Became binding in 2018.

On other governance issues, ERAFP is proud of the continued increase in the proportion of women on boards (36% in 2015, 41% in 2016, 44% in 2017 and 45% in 2018) as well as that of independent directors (47% in 2015, 51% in 2016, 52% in 2017 and 57% [in 2018]).

For the 20 international GMs that ERAFP monitors in depth, the average rate of shareholder opposition to management-proposed resolutions was slightly lower than that observed for the French sample and lower compared with 2017 (3.5% vs. 5.6%).

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 average pay increased compared with last year, while the level of opposition to remuneration policies decreased from 20% in 2017 to 9.8% in 2018[61].

Meanwhile, at 65%, the proportion of independent directors remained higher than that observed in France, whereas conversely, the process of improving gender balance on boards is at a less advanced stage (stable at 29%).

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 43.7% and 47.4%, respectively, of the resolutions tabled by the managements of the French and international companies that it monitors in depth. 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;
- the consolidated financial statements if there was no publication of a country-by-country financial report providing a sufficient level of detail regarding the geographic breakdown of activities.

Finally, ERAFP supported 12 external resolutions last year.

61. Note that the statistics on voting on remuneration policies are based on a sample of eight companies, since the 12 others in the "ERAFP's international companies" sample did not propose resolutions on executives' remuneration.

› France

Governance indicators for ERAFP's sample	2018	2017	2016	2015	2014
Gender balance of boards	45%	44%	41%	36%	31%
Independence of boards	57%	52%	51%	47%	46%
Average pay of the chief executive (€)	4,519,932	4,842,008	4,328,418	3,689,856	3,588,105

		2018	2017	2016	2015	2014	2013	2012
Overall results	Resolutions (other than those submitted by shareholders) subject to close review by ERAFP	913	889	810	772	821	658	309
	Average adoption rate per GM of resolutions proposed by management	93.6%	93.70%	94.5%	94.4%	93.6%	96.0%	94.0%
	Resolutions (other than those submitted by shareholders) rejected by the GM	0.4%	1.7%	1.8%	3.6%	0.2%	0.2%	1.0%
	Resolutions (other than those submitted by shareholders) adopted with less than 90% of the votes in favour	19.4%	19.1%	16.6%	16.9%	20.0%	13.0%	18.0%
	Resolutions (other than those submitted by shareholders) adopted with less than 70% of the votes in favour	2.7%	2%	1.8%	5.5%	5.1%	1.0%	4.0%
ERAFP votes	**ERAFP votes in favour of a resolution (other than those submitted by shareholders)**	**56.3%**	**56.8%**	**60.5%**	**67.7%**	**60.7%**	**62.0%**	**66.0%**
	ERAFP votes in favour of resolutions concerning a dividend distribution	87.5%	50%	51.4%	60.5%	43.6%	42.5%	-
	Average adoption rate per GM of resolutions concerning a dividend distribution	99.2%	99.1%	99.1%	95.9%	98.8%	-	-
	ERAFP votes in favour of resolutions concerning executives' remuneration	9.4%	8.3%	16.9%	16.5%	19.7%	-	-
	Average adoption rate per GM of resolutions concerning executives' remuneration	86.8%	87.2%	90.8%	87.8%	89.5%	-	-
	ERAFP votes in favour of directorships	67.3%	63%	67.6%	66.9%	71.8%		-
	Average adoption rate per GM of resolutions to appoint and/or reappoint directors	93.4%	92.4%	93.8%	94.8%	94.2%	-	-
External resolutions	Shareholders' resolutions submitted	6	3	10	9	9	6	5
	Shareholders' resolutions adopted by the GM	1	0	0	0	0	0	0
	Shareholders' resolutions supported by ERAFP	67%	67%	70%	56%	7	83%	80%

› International

Governance indicators for the sample	2018	2017	2016	2015	2014
Gender balance of boards	29%	29%	29%	26%	25%
Independence of boards	65%	70%	63%	59%	64%
Average pay of the chief executive (€)	8,237,754	7,168,817	7,088,188	8,522,796	7,345,514

		2018	2017	2016	2015	2014
Overall results	Resolutions (other than those submitted by shareholders) subject to close review by ERAFP	253	241	245	196	287
	Average adoption rate per GM of resolutions proposed by management	96.5%	94.4%	95.1%	96.0%	95.0%
	Resolutions (other than those submitted by shareholders) rejected by the GM	0.00%	1.34%	0.44%	0%	0%
	Resolutions (other than those submitted by shareholders) adopted with less than 90% of the votes in favour	6.2%	10.4%	11%	11.5%	12.8%
	Resolutions (other than those submitted by shareholders) adopted with less than 70% of the votes in favour	0.83%	2.71%	2.63%	0.00%	4.9%
ERAFP votes	**ERAFP votes in favour of a resolution (other than those submitted by shareholders)**	**62.6%**	**42.2%**	**43.3%**	**58.9%**	**62.0%**
	ERAFP votes in favour of resolutions concerning a dividend distribution	87%	53.3%	42.9%	54%	33%
	Average adoption rate per GM of resolutions concerning a dividend distribution	97.7%	99.4%	98.8%	92.5%	99.5%
	ERAFP votes in favour of resolutions concerning executives' remuneration	0%	5%	0%	0%	10%
	Average adoption rate per GM of resolutions concerning executives' remuneration	90.2%	81.6%	85.8%	94.1%	92.6%
	ERAFP votes in favour of directorships (appointment and reappointment)	51.5%	31.1%	42.7%		
	Average adoption rate per GM of resolutions to appoint and/or reappoint directors	96.1%	93.3%	93.5%		
External resolutions	Shareholders' resolutions submitted	12	17	16	13	4
	Shareholders' resolutions adopted by the GM	0	0	3	1	0
	Shareholders' resolutions supported by ERAFP	67%	65%	81%	85%	100%

IN 2018, ERAFP SIGNED THE ACT INITIATIVE (ASSESSING LOW-CARBON TRANSITION)

ERAFP supported and signed the ACT initiative for financial institutions developed by ADEME and CDP. The aim of the ACT project is to establish an international standard for assessing the compatibility of a company's strategy with the achievement of the overall 2°C goal.

Launched in 2015, this project helps companies move towards a low-carbon economy by offering them a methodology for assessing their strategy, with an analysis of their impacts and dependencies, and their value chain in light of the challenges to be met for a low-carbon economy by sector. To the extent possible, the signatories of the initiative agree to:

- require the companies in their portfolio to provide ACT assessments when the ACT methodology is available for the sector concerned;
- encourage companies to become involved in the development of new sectoral methodologies;
- require companies to achieve a certain ACT rating when the ACT methodology is available for the sector concerned;
- promote ACT among delegated asset managers;
- be a member of the pool of ACT investors.

ERAFP: AN INVESTOR RECOGNISED BY ITS PEERS

› ERAFP: IPE Award for best pension fund in the French and emerging markets pension fund category in 2018.

At the 18th IPE Awards ceremony held on 4 December in Dublin, ERAFP was recognised by its peers as a 100% SRI long-term investor in France and emerging markets.

In 2015, ERAFP had received the prize for best SRI investment policy and this new award confirms the overall quality of the fund's management.

› ERAFP: a winning climate strategy according to ShareAction

In 2017, AODP ranked the 500 largest pension funds (in terms of assets under management). ERAFP ranked 14th and had the highest possible rating (AAA).

In 2018, the ranking covered only the 100 largest pension funds in the world. AODP-ShareAction, which uses a ranking by assets under management developed by Willis Towers Watson, did not include ERAFP in this top 100. According to Willis Towers Watson, ERAFP was the 150th largest pension fund in the world.

However, ERAFP is included in the "Winning Climate Strategies" report published in 2018 by AODP, which explores the actions of the 22 pension funds identified as having the best practices by the ShareAction NGO[62].

62. https://aodproject.net/wp-content/uploads/2018/06/AODP-WinningStrategiesReport.pdf

4

APPENDICES

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 peremptorily, 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 by 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.

Defined contribution schemes

Schemes in which only the level of the contributions is set.

Discounting

Method for calculating the present value of a future amount based on an interest rate (here known as the discount rate).

Dormant

A person who has taken retirement under the main pension scheme but who has not yet liquidated his/her additional pension rights.

Engagement

This term describes the dialogue between an institutional shareholder (pension fund, investment management company, etc.) and an issuer, typically a company, for the purpose of having the issuer better take into account environmental, social and governance risk factors.

ESG

Acronym referring to environmental, social and governance issues.

FCP (collective investment fund)

A French FCP is a mutual fund managed by a management company on behalf of unit-holders; the FCP is not a legal entity.

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.

General indicative estimates for pensions (French acronym: EIG)

Document sent to active contributors aged 55 and subsequently every five years. The EIG provides an estimate of the amount of their pension at the legal retirement age and at the full rate, relying on income projections prepared by the Pension Steering Committee (French acronym: COR).

GIP Union retraite

French public interest group that includes 38 compulsory retirement schemes (CNAV, MSA, AGIRC, CNRACL, Ircantec, etc.) set up to create the individual information for beneficiaries on rights vested in all schemes in which they participate. GIP provides an online universal pension simulator (m@rel) that covers 95% of the population.

Greenhouse gases

Gases that are a source of global warming.

Individual Statement of Position (French acronym: RIS)

Document sent to active contributors. The statements relating to RAFP are sent along with those of the main pension scheme. 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.).

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 supplementary 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 beneficiary 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.

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.

Share

Negotiable security that gives its owner fractional ownership of a company and certain rights: to oversee and control management, 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."

Tracking error

Tracking error represents the volatility of performance variances between the fund and its benchmark index.

UCI (undertaking for collective investment)

Term generally used to refer to a vehicle for the collective ownership of financial assets.

2018 FINANCIAL STATEMENTS

BALANCE SHEET

Assets (€)	31/12/2018 Gross	31/12/2018 Amortisation, depreciation and impairment	31/12/2018 Net	31/12/2017 Net
I - Investments	25,819,872,358.58	-2,050,000.00	25,817,822,358.58	23,590,298,313.54
Shares in real estate investment companies	2,558,189,413.97	-2,050,000.00	2,556,139,413.97	2,069,033,143.97
Bonds, negotiable debt instruments and other fixed-income securities	12,638,152,430.91	0.00	12,638,152,430.91	12,322,703,268.41
Shares and units of UCITS	10,623,530,513.70	0.00	10,623,530,513.70	9,198,561,901.16
II - Active contributors and beneficiaries	123,531,971.17	-8,629,926.98	114,902,044.19	111,464,495.95
Active contributors and related accounts	35,858,153.92	-1,481,861.67	34,376,292.25	42,580,160.30
Beneficiaries	87,673,817.25	-7,148,065.31	80,525,751.94	68,884,335.65
III - Other receivables	98,468.56	0.00	98,468.56	81,182.38
Suppliers, advances and down-payments	2,160.00		2,160.00	0.00
Other receivables	96,308.56		96,308.56	81,182.38
IV - Other assets	89,133,363.71	-147,929.25	88,985,434.46	83,561,928.69
Intangible assets				
Property, plant and equipment	186,873.23	-147,929.25	38,943.98	53,171.47
Cash and cash equivalents	88,946,490.48		88,946,490.48	83,508,757.22
Total I+II+III+IV+V	**26,032,636,162.02**	**-10,827,856.23**	**26,021,808,305.79**	**23,785,405,920.56**

Liabilities (€)	31/12/2018	31/12/2017
I - Equity	0.00	0.00
II - Scheme reserves	23,987,622,258.91	22,648,846,084.83
Accruing rights	22,438,180,898.84	21,527,753,977.32
Rights being exercised	1,549,441,360.07	1,121,092,107.51
III - Non-technical reserves	2,024,479,280.60	1,125,533,579.67
Reserves for use of surpluses	2,024,190,064.28	1,125,308,387.35
Reserves for time-savings accounts	289,216.32	225,192.32
IV - Active contributors and beneficiaries	3,197,114.02	3,095,106.50
Active contributors	682,996.13	774,658.83
Beneficiaries and related accounts	2,514,117.89	2,320,447.67
V - Other liabilities	6,509,652.26	7,931,149.56
Trade and other payables	6,397,022.53	7,819,639.96
Staff and related accounts	9,691.41	14,290.70
Social security and other employment benefits	21,447.56	19,772.99
State - taxes and duties	28,346.00	26,272.00
Other creditors	53,144.76	51,173.91
Total I+II+III+IV+V+VI	**26,021,808,305.79**	**23,785,405,920.56**

PROFIT AND LOSS ACCOUNT

€	31/12/2018	31/12/2017
Contributions	1,920,036,668.42	1,872,276,366.00
Change in impairment on contributions	1,743,888.08	-450,341.48
Late payment penalties	598,356.15	373,929.49
Other technical income	0.00	0.00
Technical income	1,922,378,912.65	1,872,199,954.01
Investment income	731,938 311.30	573,176,170.04
Income from realisation of investments	20,209,353.30	12,057,139.45
Other investment income	26,135,601.63	25,709,235.89
Reversals of impairment on investments	6,070 311.31	14,180,637.69
Investment income	784,353,577.54	625,123,183.07
Expenses related to realisation of investments	-1,061,883.00	-1,919,252.55
Other investment expenses	-46,488,919.06	-46,064,586.30
Impairment charges on investments	-1,092,500.00	-6,307,700.86
Investment expenses	-48,643,302.06	-54,291,539.71
Net financial income	**735,710,275.48**	**570,831,643.36**
Benefits paid	-389,271,393.83	-359 211,597.02
Change in impairment on benefits	-1,082,750.68	-636,111.11
Other benefits	-131,050.36	-203,047.11
Benefits	-390,485,194.87	-360,050,755.24
Reduction of late payment penalties	-367,538.59	-268,914.16
Changes in Scheme reserves	-2,237,657,851.01	-2,048,730,839.49
Technical expenses	-2,628,510,584.47	-2,409,050,508.89
Scheme's net current income	**29,578,603.66**	**33,981,059.41**
Non-technical income	0.00	0.00
Reversals of amortisation, depreciation and provisions	64,646.47	0.00
Other non-technical income	64,646.47	0.00
General outsourcing of administrative management	-19,430,138.96	-18,910,694.59
External investment management expenses	-1,828,986.31	-1,617,501.98
Personnel expenses	-5,358,942.55	-5,124,671.29
Other expenses	-7,482,184.18	-8,264,193.55
Depreciation, amortisation and provisions	-150,678.87	-50,894.44
Operating expenses	-34,250,930.87	-33,967,955.85
Non-recurring income	4,904,544.36	60.08
Non-recurring expenses	-296,863.62	-13,163.64
Net non-recurring income (expense)	**4,607,680.74**	**-13,103.56**
Income tax		
Net income	**0.00**	**0.00**

STATUTORY AUDITORS' REPORT ON THE 2018 ANNUAL FINANCIAL STATEMENTS

Statutory Auditors' Report on the Annual Financial Statements

ERAFP

Year ended 31 December 2018

To the supervisory authorities of ERAFP,

Opinion

In compliance with the engagement entrusted to us by the supervisory authorities, we have audited the accompanying financial statements of ERAFP for the year ended 31 December 2018.

In our opinion, the financial statements give a true and fair view of the assets and liabilities and of the financial position of the Institution as at the end of that year and of the results of its operations for the year then ended.

Basis of opinion

Audit framework

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the "Responsibilities of the statutory auditors for the audit of the financial statements" section of our report.

Independence

We conducted our audit in compliance with the independence rules applicable to us for the period from 1 January 2018 to the issue date of our report, and in particular we did not provide any services prohibited by the French code of ethics for statutory auditors.

Justification of our assessments

In accordance with the requirements of Articles L.823-9 and R.823-7 of the French Commercial Code relating to the justification of our assessments, we bring to your attention the following assessments which, in our professional judgement, were the most significant for the audit of the financial statements for the period.

- Certain technical items among the liabilities in your Institution's financial statements, notably provisions, are estimated on a statistical and actuarial basis in accordance with regulatory procedures, as described in note “3.3.3. Scheme benefits and provisions” in the notes to the financial statements.

We assessed the assumptions and valuation procedures used to prepare these accounts, and based on the information available, performed testing to verify the application of these procedures and the consistency of the assumptions made in the light of the Institution’s past experience and its economic and regulatory environment. We also examined the appropriateness of the information provided in the notes to the financial statements.

- Financial assets are recognised and measured in accordance with the procedures set out in Note 3-3-4 “Investment transactions” in the notes to the financial statements. We assessed the valuation policies for these assets and, based on the information available to date, we performed testing to verify their application.

These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon. We do not provide a separate opinion on specific elements of the financial statements.

Specific verifications

In accordance with professional standards applicable in France, we have also performed the specific verifications required by law and regulations.

We have no matters to report as to the fair presentation and the consistency with the financial statements of the information given in the management report of the Board of Directors and the other documents on the financial position and the financial position submitted to the supervisory authorities.

Responsibilities of management for the financial statements

Management is responsible for the preparation and fair presentation of financial statements that comply with French accounting principles and for such internal control as it determines is necessary for the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing ERAFP’s ability to continue as a going concern, disclosing, as applicable, matters related to its continuation as a going concern and using the going concern basis of accounting unless it is expected to liquidate the Institution or cease its operations.

The financial statements have been approved by the Board of Directors.

Responsibilities of the statutory auditors for the audit of the financial statements

Our role is to issue a report on the financial statements. Our objective is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions taken by users on the basis of these financial statements.

As specified by Article L.823-10-1 of the French Commercial Code (Code de commerce), our statutory audit does not include assurance on the viability of the Company or the quality of the management of the Company’s affairs.

As part of an audit conducted in accordance with professional standards applicable in France, the statutory auditor exercises professional judgement throughout the audit and furthermore:

- identifies and assesses the risks of material misstatement in the financial statements, whether due to fraud or error, designs and performs audit procedures in response to those risks, and obtains audit evidence that the auditor considers to be sufficient and appropriate to provide a basis for his/her opinion. The risk of not detecting a material misstatement resulting from fraud is higher than that for one resulting from error, as fraud may involve collusion, falsification, intentional omissions, misrepresentation or the overriding of internal control;

- obtains an understanding of the internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control;

- evaluates the appropriateness of the accounting policies used and the reasonableness of the accounting estimates by management and the related disclosures in the financial statements;

- assesses the appropriateness of management's use of the going concern basis of accounting and, based on the evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Institution's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of the audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the statutory auditor concludes that a material uncertainty exists, attention must be drawn in the audit report to the relevant disclosures in the financial statements, or, if such disclosures are not provided or are inadequate, to modify the opinion expressed therein;

- evaluates the overall presentation of the financial statements and assesses whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

Issued at Paris-La Défense and Neuilly-sur-Seine, 27 June 2019.

The Statutory Auditors

Mazars

Grant Thornton
French member firm of Grant Thornton International

Pascal Parant

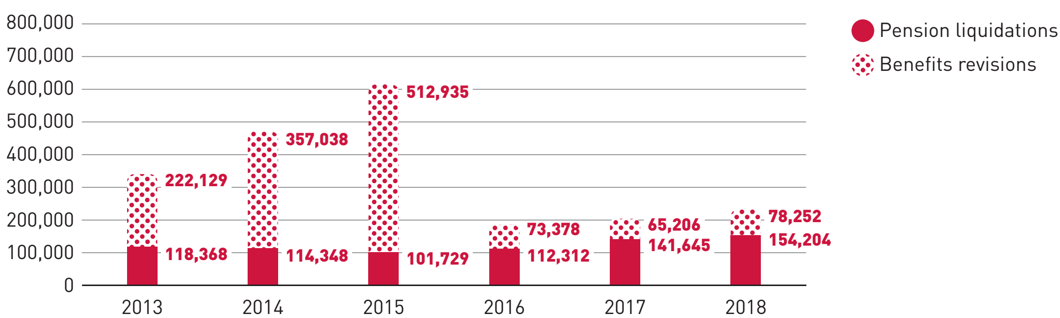
François Lembezat

Brigitte Vaira-Bettencourt

HISTORICAL DATA

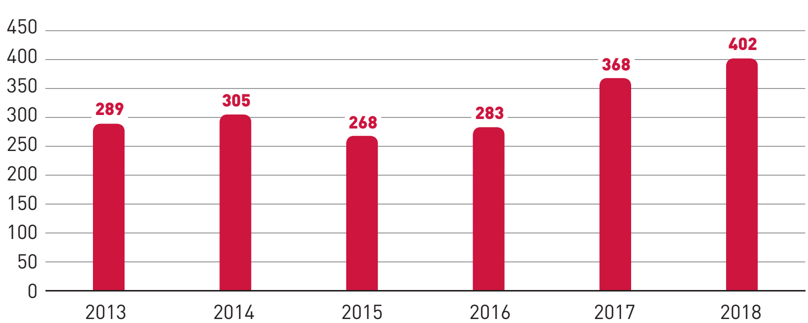
NUMBER OF PENSION LIQUIDATIONS AND BENEFITS REVISIONS, 2013 - 2018

Source: CDC administrative manager
Note: from 2016, only revisions with an impact on rights are recorded.



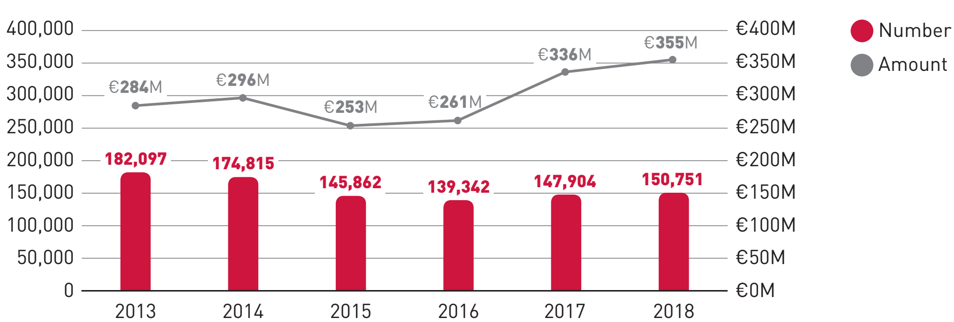
BENEFIT PAYOUT AMOUNT (IN MILLIONS OF EUROS)

Source: CDC administrative manager



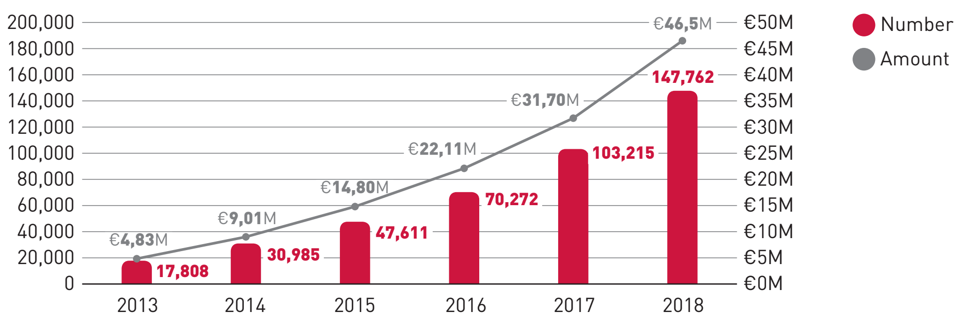
NUMBER AND AMOUNT OF ANNUAL LUMP-SUM BENEFIT PAYOUTS (IN MILLIONS OF EUROS)

Source: CDC administrative manager



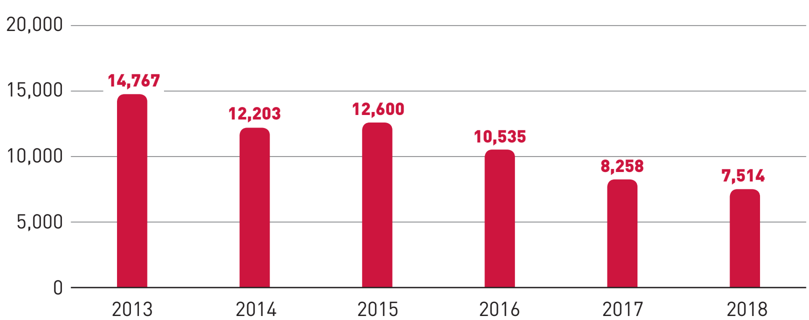
OVERALL NUMBER AND AMOUNT OF ANNUAL ANNUITY PAYOUTS (IN MILLIONS OF EUROS)

Source: CDC administrative manager



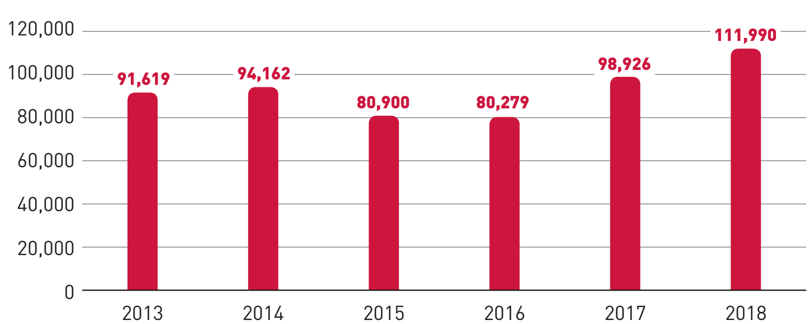
NUMBER OF CALLS HANDLED FROM EMPLOYERS

Source: CDC administrative manager



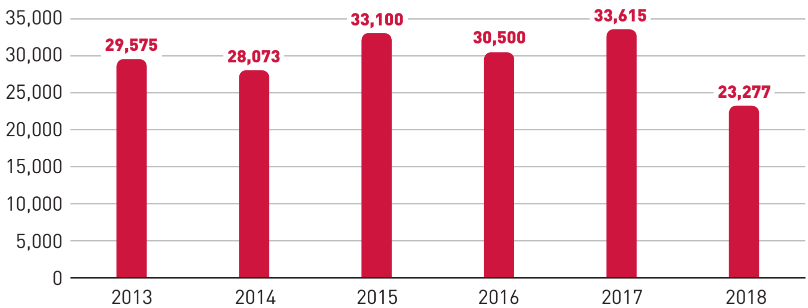
NUMBER OF CALLS HANDLED FROM RETIRED BENEFICIARIES

Source: CDC administrative manager



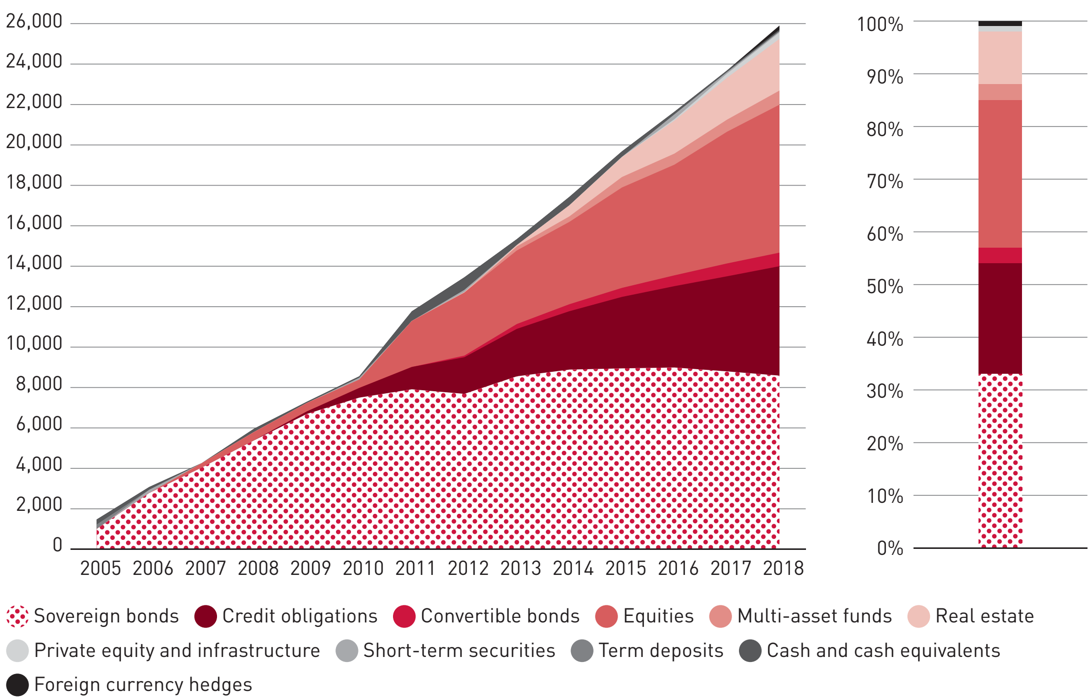
NUMBER OF CALLS HANDLED FROM ACTIVE CONTRIBUTORS

Source: CDC administrative manager



PORTFOLIO COMPOSITION (AT AMORTISED COST IN MILLIONS OF EUROS)

Source: ERAFP



ERAFP'S INTERNAL CONTROL ORGANISATION AND RISK MANAGEMENT SYSTEM

I. SYSTEM

The purpose of internal control and the risk management system is to give the supervisory and management bodies of the Scheme and of ERAFP reasonable assurance that the following objectives are achieved:

- achievement of aims and objectives set, in compliance and consistently with the orientations defined by the Board of Directors;
- adequate control of risks incurred;
- economical and efficient use of resources;
- reliability and integrity of accounting and financial information, compliance with laws and regulations and with internal rules and procedures.

ERAFP's internal control organisation and risk management system are based on the following fundamental principles:

- segregation of duties: to reduce the risk of conflicts of interest and/or fraud, the commitment, settlement and control functions must be distinct;
- control levels: distinction between first-level controls (executed by the operations staff or by their management) and second-level controls (performed by dedicated, hierarchically independent control staff).
- implementation of dedicated tools, specific committees and appropriate procedures.

ERAFP's internal control system includes:

- permanent control, which is the responsibility of ERAFP's management,
- the Board of Directors' control activities, more specifically through its specialised audit committee, which may exercise its general control powers to have the controls and verifications it deems appropriate carried out.

For ERAFP, the main players involved in monitoring the internal control and risk management system are:

- the internal control and operational risks department,
- the financial risk control department,
- the accounting agency.

The head of internal control and operational risks reports to the Deputy CEO, Administrative and Operations Director.

The head of financial risk control reports to ERAFP's CEO.

These two departments are responsible for coordinating and supervising the first- and second-level internal control and risk management system and work closely together on these matters.

The accounting agency's participation in ERAFP's internal control system is based on the fundamental principle of segregation of duties between authorising officer and accountant, pursuant to Article 191 of Decree No. 2012-1246 of 7 November 2012 on public budgetary and accounting management.

With respect to risk, ERAFP distinguishes between financial, technical and operational risks.

Financial risks include credit risk, market risk and asset-liability mismatch risk.

Technical risks include longevity risk and, more broadly, demographic risk, economic and regulatory risk applied to pensions and model risk applied to tables and discount rate calculations.

Operational risks include human resources risk, accounting risk, legal and fiscal risk, risk related to information systems security, physical and environmental risks, the risk of fraud and administrative risk. By extension, compliance risk, ethics-related risk and image and reputational risk are dealt with as a part of operational risk.

Given ERAFP's organisation, a significant portion of its activities are outsourced:

- for financial assets other than sovereign bonds: to third-party asset managers,
- for the Scheme's administrative management: this is mandated by decree to the Caisse des dépôts et consignations, which performs administrative management processes (receipt of contributions, maintenance of individual retirement accounts, calculation of rights, payment of benefits, provision of information to beneficiaries, Scheme accounting, etc.) under the authority and control of the Board of Directors.

The scope of control therefore covers:

- first: ERAFP, i.e. its own staff, processes and systems;
- second, and indirectly: the risks and controls of ERAFP's service providers and external agents, particularly the delegated managers, and the CDC.

II. CHANGES IN RISK MANAGEMENT AND INTERNAL CONTROL IN 2018

There were several projects and initiatives relating to risk management and internal control in 2018:

- The risks and internal control committee continued to hold regular meetings. This committee, which meets approximately three times a year, comprises the members of the management committee, the head of internal control and operational risk, the head of financial risk control and, depending on the meeting agenda, any other persons involved in risk management and the organisation of controls.
- In addition, prior to this committee meeting, the financial risk committee, which includes the financial risk control department and the technical and financial management teams, met regularly.
- The recalibration of the level 2 control plan, a project that began in 2017, continued throughout 2018; in this way, the control plan is constantly optimised to ensure that it remains relevant.
- ERAFP's operational risk mapping was updated throughout 2018 with the formalisation of a new mapping, as well as the associated action plans.
- Due to the increased diversification of the Scheme's portfolio and to better monitor market risk, the financial risk control department replaced the UBS Delta solution with the MSCI RiskMetrics solution.
- In 2018, the Solveo ALM tool used by ERAFP's Treasury and Finance-Actuarial department was updated to improve certain functional aspects.

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