



Annual Report 2018

AP3 Third Swedish National Pension Fund

Contents

-
- 3 AP3 2018
 - 6 Statement by the CEO
 - 8 The AP funds and their mission
 - 10 AP3's performance
 - 12 New investment rules
 - 15 Operational conditions and characteristics
 - 16 Investment model
 - 18 Sustainability goals
 - 20 Listed equities
 - 22 Private equity funds
 - 24 Fixed income and currency
 - 26 Real estate
 - 28 Infrastructure assets
 - 29 Timberland
 - 30 Insurance risk
 - 31 Absolute return strategies
 - 32 Corporate stewardship
 - 34 Partnerships
 - 35 UN Global Goals
 - 36 Employees
 - 39 Investment evaluation
 - 40 Fund governance report
 - 44 Board of directors
 - 45 Executive management
 - 47 Administration report
 - 55 Five-year summary
 - 56 Income statement and balance sheet
 - 58 Notes to the financial statements
 - 69 Signatures
 - 70 Auditor's report
 - 72 Key figures
 - 74 GRI index
 - 77 Glossary
 - 79 Sweden's pension system

Financial information

Information about AP3 and our operating activities and investments is available at ap3.se, along with all annual and interim reports.

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» AP3 CEO Kerstin Hessius: Pleased with a positive return of 0.6 per cent in a year that brought a sharp drop in the equity portfolio.



» Four climate-related sustainability goals were established in 2014. By 2018 we had reached them all.



» The expertise, dedication and professionalism of AP3's employees underpinned the Fund's performance in 2018.



Third Swedish National Pension Fund Annual Report 2018

This annual report describes AP3's operating activities in 2018 and includes an integrated sustainability report. AP3 conforms to the GRI Standards of the Global Reporting Initiative and reports at "core" level and in conformity with "financial services" sector requirements. See also the annual reports of the Swedish National Pension Funds' Council on Ethics.

2018

The net result of SEK 2.2 billion corresponded to a return of 0.6 per cent after expenses. The Fund's real estate investments and currency exposure compensated for a sharp fall in the equity portfolio in the final quarter of the year. At year-end, Fund capital totalled SEK 341 billion after net payments of SEK 6.8 billion to the pension system. In the last five years, average annual real return stands at 6.7 per cent, comfortably above both the Fund's long-term target of 4 per cent and the 2 per cent growth of the income index.

2.2
SEK bn

net result

0.6
%

return after
expenses

341
SEK bn

fund capital at
31 Dec

0.09
%

management
expense ratio



A year of rising market instability

Market risk rose in 2018 due to a combination of tighter monetary policy, growing international trade tensions and heightened volatility in the technology sector. Deepening concern over the outlook for growth triggered a sharp drop in equity markets during the autumn.

Portfolio performance

The final quarter of the year proved dramatic, with US stock markets – which together account for more than 50 per cent of the world index – falling by close to 20 per cent. The AP3 portfolio was nevertheless able to withstand this correction and generated a return of 0.7 per cent before expenses. The key drivers behind this performance were strong growth in our Swedish real estate holdings and our foreign currency exposure. Together, these factors enabled us to report a positive overall return. Here, our policy of diversification made a strong contribution and enabled us to outperform the benchmark index by 3.1 percentage points.

Market developments

The year began amid a continued climate of strong economic growth and tighter monetary policy, especially in the US. Concern over growth began to rise during the autumn due to international trade tensions, budget negotiations in Italy, fruitless Brexit talks and political uncertainty in the Middle East.

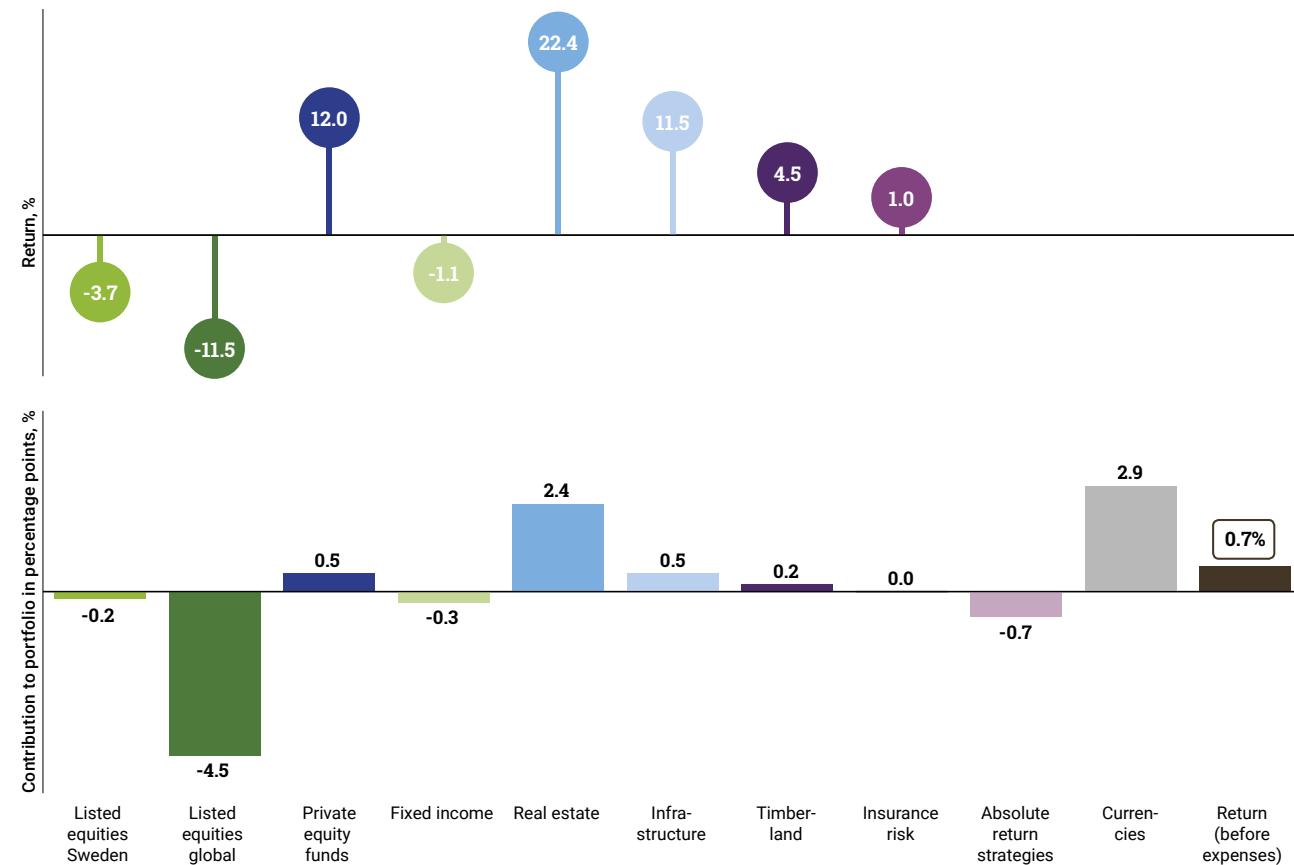
At the same time, signs of weakness began to emerge in the US technology sector, where companies like Facebook, Apple, Amazon and Google have provided the foundation for the strength of the US equity market. When the Federal Reserve signalled its intention to raise interest rates,

precipitating a sharp rise in US long-term bond yields in September, the stock market began to weaken – a pattern that accelerated as the year drew to a close.

In Sweden, inflation rose to 2 per cent. However, the Swedish Central Bank's decision not to raise base rates until December, from -0.5 per cent to -0.25 per cent, kept the krona weak during the year and enabled Swedish assets to performed relatively well.

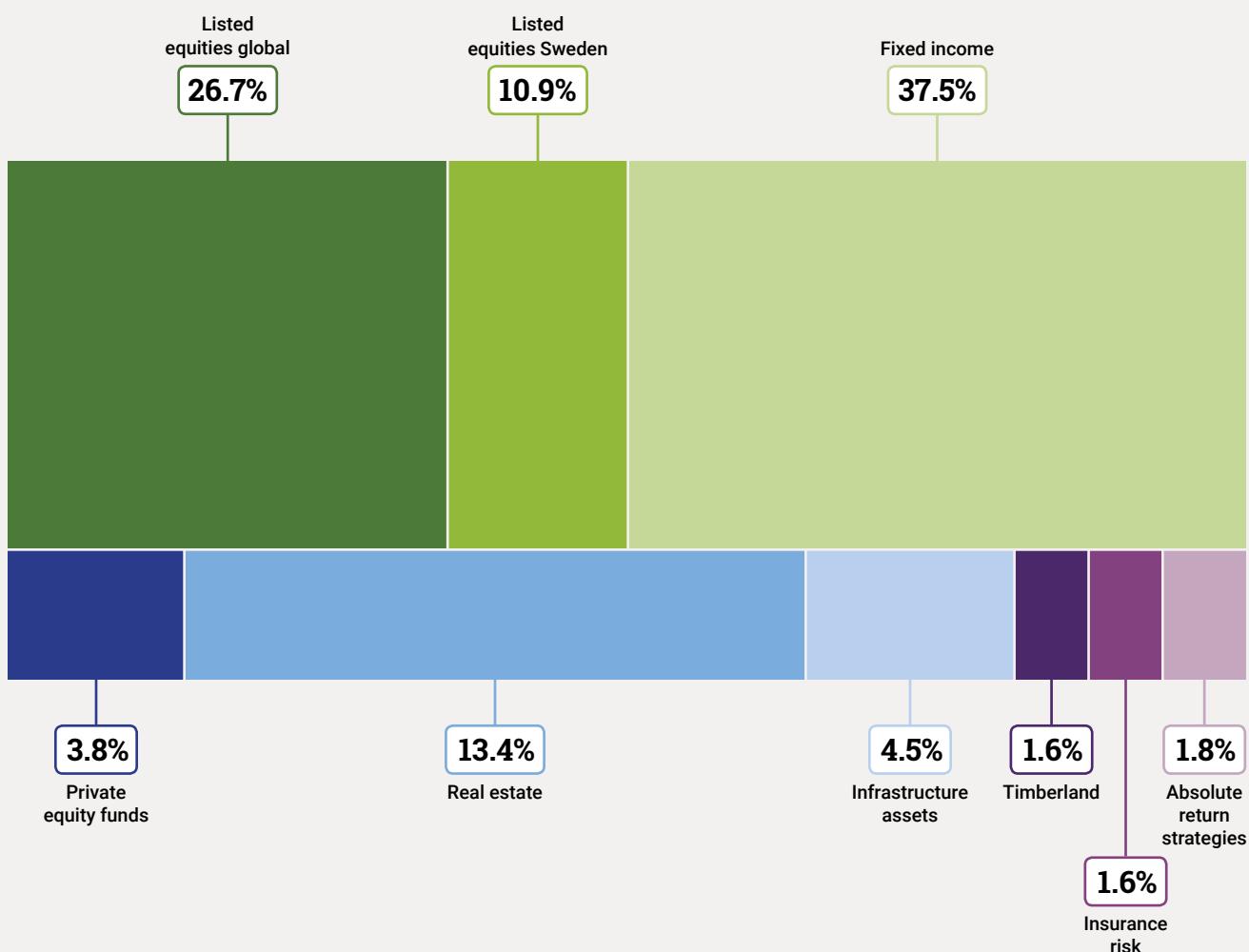
Return and contribution to total portfolio

(per investment category, hedged. For currencies and absolute return strategies, only the contribution to total portfolio return is shown)



AP3 portfolio by asset class at 31 Dec 2018, based on market value

Total net exposure shown for absolute return strategies. Total exposure to listed equity was an additional 4.7 per cent including forwards. This exposure is continuously reinvested in the equity market, reducing the market value of the Fund's fixed income holdings by an equivalent amount.

**Portfolio strategy**

Growing concern over future growth prospects prompted AP3 to take measures to increase the robustness of the portfolio during the first half of the year. We reduced total risk by decreasing exposure to equities, raising currency exposure and increasing the duration of the fixed income portfolio. Currency exposure was cut further in response to a sharp increase in the value of the US dollar. Exposure to debt markets

remained very low due to low projected returns.

In alternative investments we focused on prioritising the different growth paths that opened to us following the introduction of new investment rules, investments mainly in already established areas such as real estate companies, infrastructure projects, timberland and private equity funds.

Currency strategy

AP3 increased currency exposure significantly in the early part of the year in order to reduce overall portfolio risk. Call options in US dollars were the primary mechanism for this increase in exposure. As nervousness increased on the financial markets, the dollar gained significantly in value while emerging market currencies depreciated. This revaluation caused AP3 to increase its exposure to emerging markets towards the end of the year while scaling back exposure to the dollar. The Fund also sold dollars as it became clear that first interest rate increase by the Swedish Central Bank was imminent. Exposure to the euro remained low.

Currency exposure in 2018

A challenging year in which diversification paid off

How will 2018 be remembered? It was the year the Federal Reserve raised US base rates above 2 per cent for the first time since the financial crisis, and the year the Swedish Central Bank took its first step away from a negative repo rate.

We will remember 2018 as the year in which the krona continued to depreciate – and in which the Swedish real estate market held firm, the US stock market reached record heights only to plummet, and in which bond yields failed to stabilise at higher levels. It was the year in which trade wars threatened global growth, in which Brexit negotiations failed and in which general elections produced political deadlock. China's growth surge ran into problems and fears mounted that the world economy had passed its cyclical peak.

Diversification pays off

In the 2017 annual report I compared the financial markets with Ferdinand, the flower-loving fictitious bull in the children's story. I suggested that the sweet smell of benign monetary policy and economic growth might not persist in 2018 – and so it proved. During the autumn, the flowers withered and the petals fell off as the final quarter of 2018 turned into a dramatic one on equity markets.

Our strategic agenda for 2018 focused on making the portfolio more robust. We raised our dollar exposure, increased duration in the fixed income portfolio and scaled back equity risk. These measures served us well during the autumn turbulence. I am pleased that we succeeded in delivering a positive return of 0.6 per cent in a year in which we suffered a negative return of 4.7 percentage points in equities, our most important investment category. Thanks to our real estate holdings and other unlisted assets and our currency exposure, AP3 was able to hold firm. I therefore see 2018 as the year in which diversification paid off.

Sustainable performance

For the first time since 2011 we experienced a drop in fund capital. This reflected the fact that our return of SEK 2.2 billion was insufficient to cover our payments of SEK 6.8 billion to the pension system. This gives no cause for concern, however. Our fund capital of more than SEK 340 billion remains healthy in comparison to our projected annual payment commitments of SEK 6-8 billion in the next few years.



Thanks to our real estate holdings and other unlisted assets and our currency exposure, we were able to hold firm.

Over the last five and ten years AP3 has generated strong returns of 6.7 per cent and 7.4 per cent respectively. Indeed, over the last decade our investment returns have exceeded the income index by 5.8 percentage points each year.

During the year we sought to increase our preparedness for tougher times by improving the quality of our internal processes. Measures included reinforcing our first line of defence by creating a new position of chief operating officer (COO) in asset management, modernising our risk management plan and purchasing a new performance analysis system.

New investment rules

Another important event was Parliament's decision to introduce new investment rules for the AP funds. This modernisation aimed to make it easier for the funds to diversify their investments and to highlight the importance of sustainability in their investment activities. The new legislation reduced the minimum level of investment required in fixed income securities with low liquidity and low credit risk. It also mandated investment in unlisted assets as more of a rule than an exception. Sustainability was given a higher profile and specific rules were implemented that require the four AP funds to work together.

We devoted a great deal of time during the year to adapting our internal guidelines to the new investment rules, which took effect on 1 January 2019. The new rules are important and progressive but do not require immediate changes in our procedures and processes because we were already in compliance. This is how it should be when pursuing a long-term mandate: no sudden changes but, rather, gradual adaptation to what development requires.

Climate strategy with clear sustainability goals

Our sustainability strategy is closely integrated into our management model and must be compatible with the Fund's mandate to generate a healthy income for the pension system. This means considering environmental, social and governance aspects in our investment decisions. AP3 also engages in dialogue with investees and participates in investor initiatives. We follow the Council on Ethics' recommendations on portfolio exclusions, though we do not see exclusion as a strategy for responsible asset management. The AP3 climate strategy involves having clear sustainability goals for the portfolio. We see this as the best way to ensure our investments have the most impact. I am proud to report that we have achieved all the sustainability goals we set for fulfilment by 2018 and have now implemented new goals for 2025.

Return target unchanged

One issue that has long figured on our agenda is the target level of 4 per cent for real return. Is it realistic to expect AP3 to achieve that figure over time? When the target was introduced in 2004, the



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As an asset manager we are tasked with foreseeing and responding to major changes so that we generate strong investment returns and limit the risk of significant portfolio losses.

20-year real interest rate in the US was above 2 per cent. Today it is one percentage point below that level. The AP3 board of directors decided to postpone any changes to the 4 per cent target until after the completion of an in-depth ALM analysis. That analysis will be performed in 2019 in an environment influenced both by the new investment rules and a more normalised monetary policy regime.

Demands for a flexible asset management

We live in a complex world in which the financial markets constantly price in the changes that influence risk in investment assets. As a pension fund manager, AP3 is tasked with foreseeing and responding to major changes so that we generate strong investment returns and limit the risk of significant portfolio losses. We must be flexible in our investing activities and have effective control over our risks.

It is important that we do not over-complicate our portfolio, despite the fact that we manage assets globally and in multiple asset classes, currencies and forms of ownership.

Going forward, we will work to streamline our operations – in the knowledge that this is always a challenge. The Fund is always driven by a determination to do what is best for the pension system. I would like to thank my excellent colleagues for their efforts in 2018 and for their constant willingness to perform even better. I also thank the board of directors for their support and constructive discussions and for the demands they place on me and us.

Kerstin Hessius
CEO

Buffer fonds are the bedrock of the pension system

When the Swedish government reformed the state pension system in the 1990s, the AP funds were given a capital buffer and a mission of generating maximum value for current and future pensioners over time. Nearly two decades later, the funds have been able to deliver on this mission and have succeeded in strengthening the income pension system.

The AP funds and their mission

The state pension system is the product of a cross-party agreement and was introduced at the start of the millennium. Since then, the parliamentary Pensions Group has had the task of overseeing the system by evaluating its performance and working on improvements.

The five funds that manage the capital buffer are a core component of the system. Their role is to manage the investment assets that they each hold. AP1, AP2, AP3 and AP4 have identical mandates in managing the capital buffer, while AP6 manages a smaller part that is assigned to private equity investments.

The capital buffer is there for the benefit of both current and future pensioners. Managing it is about acting responsibly at all times, both as investors and as owners. The AP funds' mission is based on the Swedish Instrument of government, the core values of the Swedish state and the international conventions of which Sweden is a signatory.

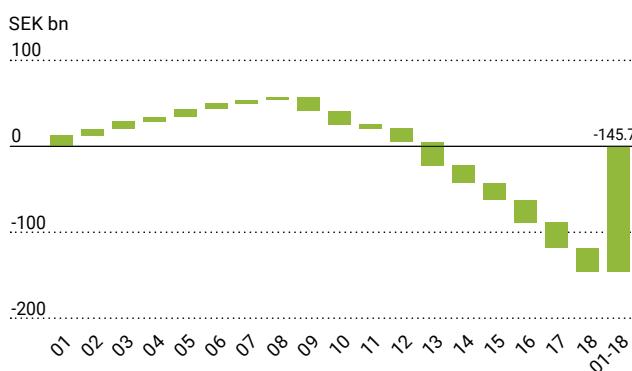
Along with the other AP funds, AP3 is a government agency that differs from other agencies in its independence from the government. The AP funds are regulated by the National Pension Insurance Funds Act (2000:192). The act allows them to act long-term and is designed to give them the right conditions to be successful in fulfilling their mission.

THE INCOME PENSION SYSTEM

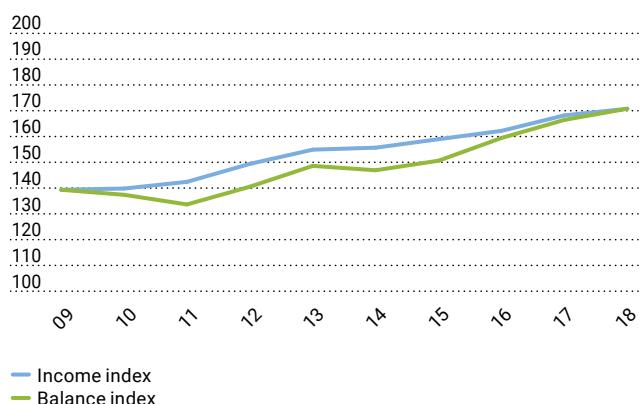
Facts

- The Swedish pension system is self-financing. There is no element of individual saving in the income pension system. Instead, beneficiaries receive pension credits. The combined pension contributions of all people in work finance the pensions that are paid out every month. AP1, AP2, AP3 and AP4 are there to finance the difference between paid-in and paid-out pensions.
- Pensions and pension credits (pension liabilities) are uprated annually in line with average wage growth tracked by (the income index) in Sweden to ensure that pension values remain as closely in line with the overall economy as possible.
- Every year the income pension system's assets and liabilities are calculated and if the ratio between them (the balance figure) falls below 1.0 the system enters a phase of balancing to regain financial strength. This means that for a period of time pensions are raised at a lower rate, in line with the balance index, in order to strengthen the system. This is known as the "brake" and ensures that the financial health of the system remains independent of demographic or economic developments.

The AP funds finance the income pension system deficit



Pensions and pension credits are indexed in line with the income index and balance index, 2009-2018





Mandate with two purposes

The primary task of the AP funds is to manage the periodic surpluses and deficits that arise in the income pension system. These imbalances occur because of long-term changes in Swedish demographics, which may cause the pensions paid out in a given year to diverge somewhat from the pension contributions that are paid in.

Currently, the income pension system is experiencing a prolonged run of annual deficits that means the capital buffer managed by the AP funds is required to help cover paid-out pensions (see chart on previous page).

The AP funds' second task is to enhance the stability of the income pension system by generating financial returns that make the system stronger over time. Thanks to the high returns they have generated, the AP funds have gained in their importance to the pension system and have played the stability-enhancing role that was envisaged when they were created. The health of the income

pension system today can be seen in its ratio of assets to liabilities. This ratio is known as the balance figure.

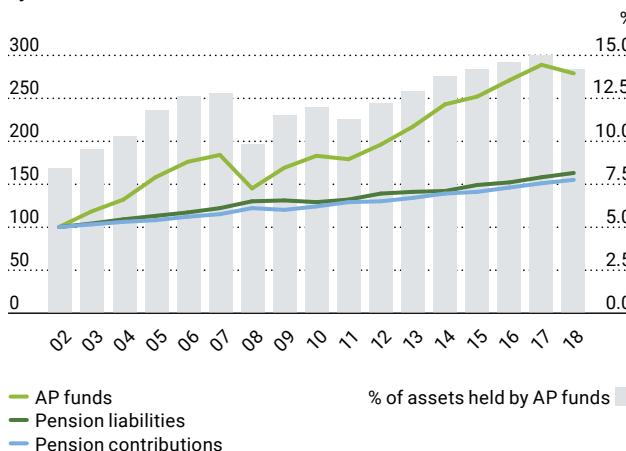
Further development of the pension system

The parliamentary Pensions Group has initiated a review of the state pension system to ensure its future strength. The updated investment rules for the AP funds, effective as of 1 January 2019, are an important step forward in this process. Work to improve the rules relating to infrastructure assets, private equity and loans will continue in 2019.

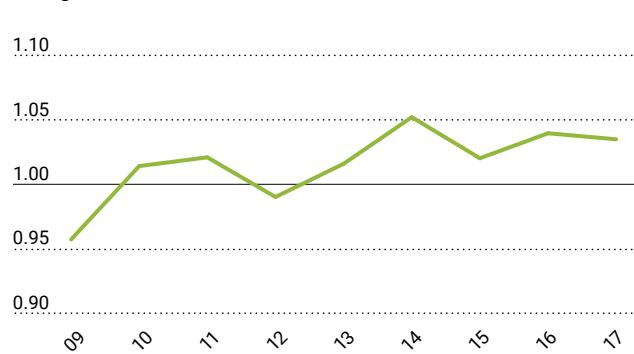
The Pensions Group is also aiming to improve the basic pension level, to enhance the premium pension system and to update the system's age bands. The latter step is intended to reflect the fact that average life expectancy is now two-and-a-half years more than it was when the current pension system was established.



The AP funds have grown in importance to the income pension system



Balance figure (total assets/pension liabilities) indicates system's strength



Value growth achieves long-term target

Strong asset management performance and low inflation in recent years mean that AP3 has so far succeeded in reaching its target.

Performance related to mission and targets

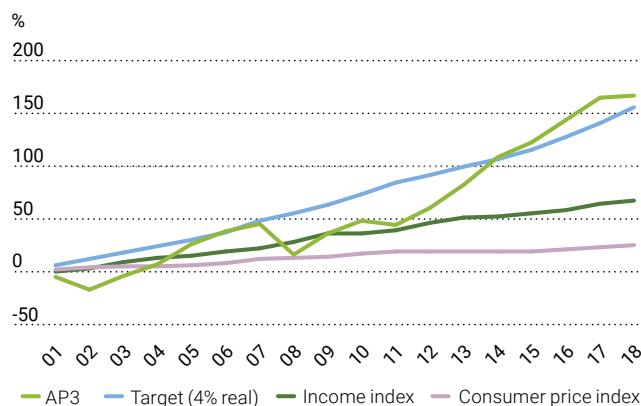
AP3 makes a positive contribution to the income pension system as long as its returns exceed the income index over time. On average, the income index has increased by 2.9 per cent per annum since inception, while AP3's average annual return stands at 5.6 per cent.

AP3 is required to observe generational neutrality, meaning that it may not discriminate between different age cohorts. This requires AP3 to strike a balance between investing in high-risk assets to achieve strong returns over time while on the other hand avoiding significant investment losses in the short run. The AP3 board of directors has adopted a real return target of 4 per cent over time to strike that balance.

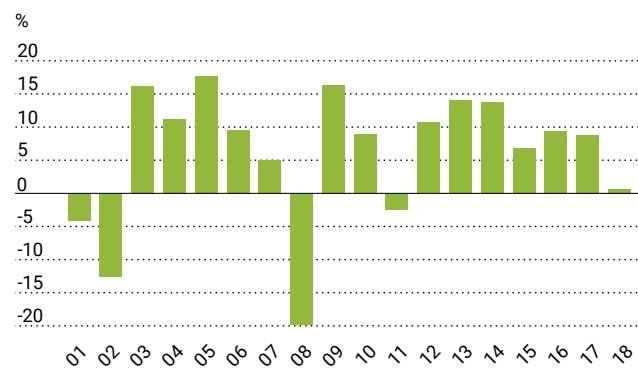
Aggregate percentage growth since 2001

Strong asset management returns in recent years have enabled AP3 to outperform its long-term target of a 4 per cent real return. Our average annual return stands at 5.6 per cent since inception. This equates to a real return of 4.2 per cent. The low average inflation rate of 1.3 per cent during this period is below the Swedish Central Bank's 2 per cent target.

Aggregate percentage growth of portfolio and benchmarks, 2001–2018



Return after expenses 2001–2018





5.6%

Average return
since inception
2001

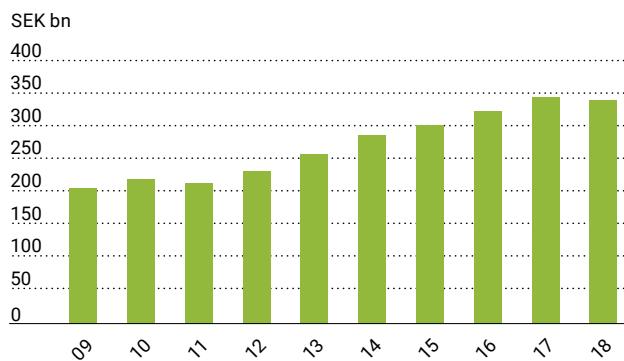
Return after expenses

The dotcom crash at the start of the new millennium and the financial crisis of 2008 precipitated sharp falls in the value of AP3's investment capital. However, a strong rebound has occurred since 2009 and delivered seven consecutive years of positive investment return (see chart on page 10). AP3's investments strategy and the combined impact of compound growth and solid market fundamentals have enabled a sharp rise in the value of the portfolio. This has had positive effects on the income pension system and its financing.

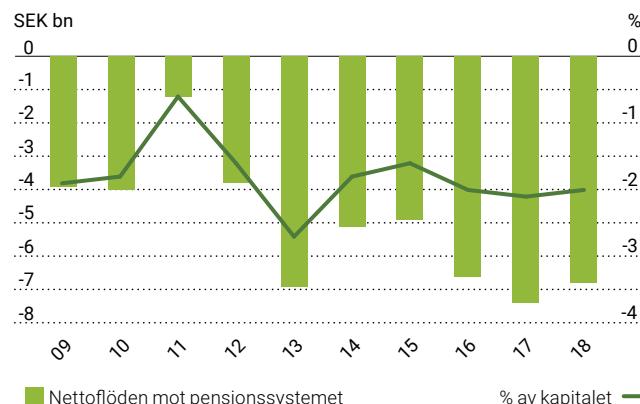
Fund capital

In 2018 AP3 recorded a drop in fund capital for the first time since 2011. This was due to the fact that our return of SEK 2.2 billion was insufficient to cover the payment of SEK 6.8 billion to the pension system, a payment that equated to 2 per cent of fund capital. Since 2009, AP3 has paid out SEK 50.7 billion to finance the pension system deficit – a deficit that is projected to be SEK 2.0–2.5 billion in the next 10 years. For this reason, the Fund can expect the capital to grow more slowly in the next decade compared to the previous decade.

Fund capital 2009–2018



AP3's net payments to the income pension system have increased 2009–2018



New rules improve our investment opportunities

The AP3 organisation is well prepared to exploit the opportunities presented by the government's new investment rules. The Fund has built up its expertise and constructed a platform to facilitate growth in unlisted investments.

The new guidelines, which took effect on 1 January 2019, mark a structural shift in how the capital buffer can be invested.

Starting in 2000, the AP funds were required to invest their wealth in listed assets and to maintain a high proportion of liquid fixed income holdings. A minimum 30 per cent of each fund's capital had to be invested in low-risk bonds, though with an exemption permitting 5 per cent to be invested in unlisted assets – primarily private equity funds. In addition, the AP funds were allowed to invest directly in real estate companies with no upper ceiling.

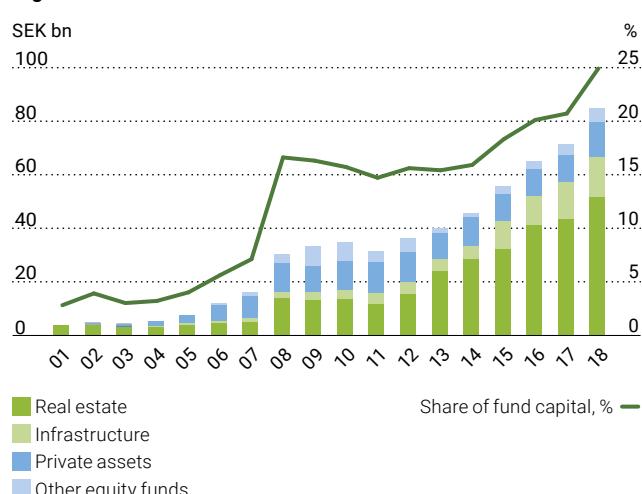
The change in the guidelines now allows the funds to invest up to 40 per cent of their capital in illiquid assets. These are assets that are not market-listed. They include the investments that the AP funds hold today in private equity funds, real estate companies, timberland, infrastructure assets and other unlisted assets.

At the same time, the proportion of assets that each fund must hold in low-risk bonds was reduced from 30 per cent to 20 per cent.

The new guidelines do not, however, allow the funds to invest in new forms of investment, which means the funds will continue to be unable to invest in commodities or commodity-based derivatives.

The National Pension Insurance Funds Act makes clear that the funds' mission continues to be to generate high investment returns over time. The new guidelines provide good conditions for the funds to continue to manage sustainability risks effectively. They also stress the importance of the funds acting as responsible investors.

Higher ratio of alternative investments increases diversification



The National Pension Insurance Funds Act makes clear that the funds' mission continues to be to generate high investment returns over time.

SUMMARY OF THE NEW INVESTMENT RULES

Facts

REDUCED

20%

At least 20% of the Fund's assets must be invested in fixed income securities with low credit and liquidity risk.

NEW

40%

The Fund may invest no more than 40% of its assets in illiquid assets.

UNCHANGED

40%

Currency exposure may not exceed 40% of assets.

10%

The Fund may hold no more than 10% of the voting equity in a single listed company.

2%

The Fund's investments in Swedish regulated equity markets may not exceed 2% of the total market value.

New rules highlight AP funds' sustainability efforts

Peter Lundkvist, AP3 Head of Corporate Governance, gives his perspectives on how the new guidelines will affect AP3's work as a responsible investor and owner.

How do you view the fact that the new legislation stresses the importance of sustainability?

The updating of the National Pension Insurance Funds Act reflects the international trend towards the capital held by long-term institutional investors being increasingly expected to play a role in the transition to a more sustainable society. It also highlights the importance of the work that the AP funds do in this area, and we're very proud of that.

What does managing fund capital responsibly mean in practice?

It means that the AP funds should deliver high investment returns over time. We must promote sustainable development without compromising this objective. To retain public confidence, it is essential that the AP funds integrate environmental, social, governance and ethical aspects into their investing activities. We believe it is also important for public confidence in the income pension system as a whole.

Will the new rules require any changes to the way AP3 works?

The foundations of our investment model have developed and been put in place over the course of nearly 20 years. The same applies to sustainability, but there is always a need for continuous improvement. The

AP funds have a tradition of being committed owners.

We engage with our investee companies and other stakeholders and we participate in various national and international initiatives in support of good corporate stewardship.

How do the new rules affect the Fund's investment holdings?

AP3 and the other AP funds respect the international conventions signed by Sweden and we share jointly agreed guidelines on asset categories that we will avoid. The AP funds are also part of active international efforts taken by the financial markets to combat treaty violations. Working together makes us more effective and increases our impact.



The update reflects the international trend towards the capital held by long-term institutional investors being expected to play an important role in the transition to a more sustainable society.



Peter Lundkvist,
Head of Corporate Governance





Operational conditions and characteristics

AP3's mandate and operational conditions is a corner stone in what defines the Fund. These are the bedrock on which investment strategy and investment model is built.

AP3 has developed the asset management model over the course of almost 20 years. The model reflects the Funds characteristics as an investor and is a corner stone in AP3's ambition to conduct a sustainable

and successful investment management.

The model is described on the following pages, covering everything from investment selection to sustainability and our employees.

AP3'S SPECIAL CHARACTERISTICS



Long-term approach

AP3 has a long-term mission on behalf of the Swedish pension system. The Fund can therefore operate beyond the short and medium term and invest in illiquid assets where value creation takes place over time. Returns can be relatively high because such investments are not suitable for all types of investor.



AP3 has a competitively sized portfolio and organisation. The portfolio is large enough to enjoy advantages of scale, while organisationally the size is conducive to short decision-making processes and a professional culture in which employees take a large degree of personal responsibility.



Based in Sweden

Since AP3 is based in Sweden, the Fund has a natural focus on Swedish investments. This focus has been beneficial for many years and allowed the Fund to share a Swedish perspective with global stakeholders.



The AP3 approach, the status as a government-owned institution, as well as the Swedish base, altogether makes the Fund an attractive partner and help facilitate long-term projects.



AP3 is regulated by the National Pension Insurance Funds Act, which sets a stable framework for operating activities. The act enables the Fund to act flexibly and with a long-term perspective, giving the Fund an advantage over other institutions that may be required to sell assets when market risk increases.

16-37

Read more about AP3's investment model on pages 16-37



Foundations of the AP3 asset management model

The AP3 board has set a target for the Fund to achieve an annual real return of 4 per cent over time. This ambitious goal means gearing the investment model towards investments that offer sufficient return.

Based on the Fund's defining characteristics, the investment model has five key features:

- Invests in assets that generate a risk premium.
- Adjusts the different risks within the portfolio to changing conditions (dynamic allocation).
- Diversifies risk to create value by reducing the portfolio's sensitivity to market swings.
- Deploys effective governance that empowers effective ownership.
- Applies cost-effective solutions.

To maintain a high level of ambition in these areas, AP3 has made a number of choices that together define the asset management approach.

Different investment horizons

– strategic and tactical asset allocation

In the long run, portfolio allocation – and hence total portfolio risk – is the single most important factor for AP3's investment returns. Effective risk allocation is achieved through diversification and by making dynamic changes to allocations over the medium term in response to financial market conditions. Strategic allocation is based on a medium- to long-term investment perspective in which portfolio risk is adjusted primarily in accordance with macroeconomic assessments and projected returns. In

tactical allocation, the time frame is shorter and the emphasis is on seeking by quantitative or qualitative methods to identify assets that are wrongly priced by the market. Over time, we believe that a combination of diversification and strategies with different investment horizons will enable us to meet our return target at a reasonable level of risk.

Global investor with Swedish focus

AP3 invests globally to build a diversified portfolio and to harness the available opportunities in world financial markets while retaining a focus on Sweden and Swedish investments. The Fund's expertise is greatest in Swedish market conditions and have a Swedish-based network plus a tradition of building real estate companies in Sweden. This is why AP3 focus our direct investments and corporate stewardship on Sweden.

Majority of assets managed internally but aided by specialist global network

The Fund is governed from Stockholm, from where the 60-strong staff manages the bulk of our investments. The Fund manage is most of the investments internally, an approach that ensures transparency, gives a good understanding of market events, and promotes effective governance and high cost efficiency. To succeed in these areas, AP3 rely on an experienced team of professionals to analyse the investment landscape and monitor the holdings effectively. In select-

ed areas, the Fund invest through external managers where and when there is a need for specialist expertise in areas outside core business. This includes active equity management in emerging markets and private equity investment.

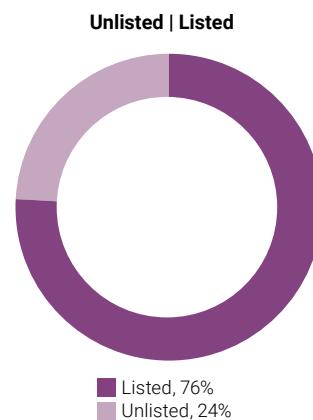
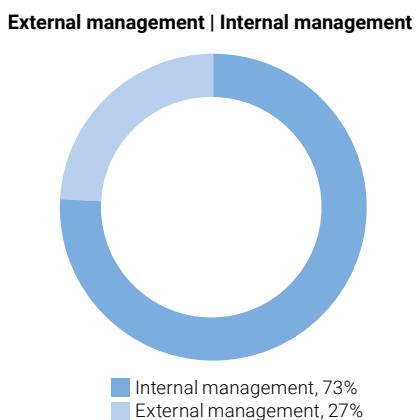
Invests in unlisted assets for diversification and return

AP3's characteristics as a fund make us an attractive partner, as well as a demanding investor in Sweden and abroad. They enable us to work with specialists and professionals to implement direct investments in real estate, infrastructure and timberland. The main reason to build companies is that this is a productive form of asset management. Direct ownership increases oversight and ability to exercise responsible governance, giving greater control over value creation in the long run. Direct investments are also less exposed to the volatility of listed assets. AP3 also has extensive experience of private equity investment.

Cost-effective investor

Cost-efficiency is essential to public trust in the Fund. AP3 prioritises effective solutions and scrutinises management models, partnerships and supplier requirements to maximise cost-effectiveness throughout the operations.

THREE PERSPECTIVES ON THE AP3 PORTFOLIO





Long-term mission demands broad perspective

The AP funds' mandate requires them to create maximum value for the income pension system by generating high returns over time while also taking into account investment impacts. New government guidelines underline the importance of the funds acting as responsible investors.

Kerim Kaskal, AP3 CIO, explains what they mean for asset management at AP3.

How does AP3 promote sustainable development?

"As a long-term investment manager, we have a strong interest in contributing to the continued growth of financial investments. In this context, it is natural to try to ensure that environmental, social and governance aspects are compatible with sustainable development."

How does this affect AP3's operating activities?

"AP3's sustainable investment strategy has been in place for a long time now and is an inherent part of investing successfully. We continue to have clear goals for the portfolio's carbon footprint and for investment in areas like green bonds. We also work actively to ensure that our directly owned real estate companies are sector leaders in sustainability."

What do the new investment rules mean for AP3's asset management?

"They will better enable us to exploit our institutional advantages as a long-term pension fund manager. The guidelines raise our scope for taking on liquidity risk and for diversifying the portfolio, which is well aligned with the portfolio strategy we have developed in recent years. Examples include our drive to develop our directly owned real estate companies and our investment in the electricity distribution company Ellevio that we completed in 2015."

So the new guidelines are a step forward?

"Yes, they give us increased scope, which is a great advantage for us in fulfilling our mandate to generate the maximum possible benefit for the income pension system. It also demands a broad-brush approach to asset management. Opinions may differ on

what constitutes a good or a bad investment. It can depend on your perspective. For example, we do not want to forego the opportunity to help shape the direction of certain sectors. This is something of a trend today."

But you also say no to investing in certain companies and industries?

"We follow the recommendations of the AP funds' Council on Ethics when it comes to portfolio exclusions based on treaty violations. In other contexts, we do not see exclusion as a solution to sustainability-related issues. That said, we are obviously not interested in owning companies or investing in sectors with poor future prospects, such as coal mining."

Sustainability goals – climate change in the spotlight

In 2014 AP3 adopted four sustainability goals for 2018, all relating to climate change. By the end of 2018 the Fund had achieved all four of these targets.

Climate change is a challenge that demands major shifts in global resource use. In 2014 AP3 established four sustainability goals to reduce risks in this area. These targets highlighted areas where the Fund is best placed to exercise a positive influence, such as green bonds and strategic sustainable investments.

Sustainability in AP3 properties is another key strategic objective. Properties are high

consumers of resources in terms of energy, waste and materials. AP3 works to ensure that its directly owned property companies take a lead in promoting sustainability in their sector.

In the listed equity portfolio, AP3 engages with investees to encourage them to reduce the climate impact of their operating activities. AP3 work to limit sustainability risks that can adversely impact on investment

returns. Measures in this context include steadily reducing the carbon footprint of the portfolio by reducing weight in, or not investing in, companies and sectors with the highest climate impacts. The Fund is committed to renewing its sustainability goals in order to maintain progress in this area.

AP3'S SUSTAINABILITY GOALS



1 Halve carbon footprint

Reduce by half the carbon footprint of our holdings in listed equities and credits compared to 2014 levels. AP3 works actively to encourage all investees to report their carbon footprint.



[Read more on page 19](#)



2 Double strategic sustainable investment

Increase AP3's strategic sustainability investments from SEK 10 billion to SEK 20 billion by the end of 2018. These investments had a market value of SEK 28.5 billion on 31 December 2018.



[Read more on page 23](#)



3 Triple holdings of green bonds

Raise holdings of green bonds more than three-fold, from SEK 4.5 billion in 2014 to SEK 15 billion in 2018. AP3's green bond portfolio stood at SEK 16.5 billion on 31 December 2018.



[Read more on page 25](#)



4 Promote green real estate

AP3 seeks through its holding in Vasakronan and other real estate companies to lead the adoption of sustainable practices by the Swedish real estate sector. The Global Real Estate Sustainable Benchmark (GRESB) in 2018 ranked Vasakronan as the European number one in office property and the world's ninth most sustainable real estate company.



[Read more on page 26](#)



1 2 3 4

SUSTAINABILITY GOALS

Halving carbon footprint

Climate change is a global challenge that demands major changes in the use of the Earth's resources. Investors have a key role to play in this context, and AP3 works to advance this agenda in a variety of ways.

Long-term investors can deploy different strategies to reduce the climate impact of their investments:

- Encourage investee companies to reduce climate impacts in their business operations
- Invest in new solutions that help to alleviate climate impacts
- Consciously decide not to invest in companies and sectors with major negative climate impacts

Institutional investors can also decide to reduce their exposure to climate risks by not investing in the companies and sectors with the highest climate impacts, thus reducing the carbon footprint of their portfolios.

AP3 has chosen for business reasons not to invest in the coal mining and oil shale industries. Generally speaking, the Fund strives not to relinquish responsibility for emissions by divesting companies that face climate-related challenges. This is not the most effective solution from a climate perspective. Instead, the Fund uses active stewardship to encourage investees to embrace positive change. This is primarily about convincing companies to measure their carbon footprint and then to adapt

their operating activities to reduce it. AP3 engages in dialogue with investees that have high carbon emissions, and we encourage them to reduce this climate impact over time.

Further drop in climate impact

As part of our engagements in this area, we measure and disclose the emissions that result from our investments. We report on a range of carbon footprint measures and evaluate them to construct an overall picture. Carbon footprint provides a window on the climate risk in the portfolio and serves as the base for dialogues with investees.

In 2018, the climate impact of the AP3 portfolio continued to decrease. It has fallen by 35 per cent since 2014, and as at 31 December 2018 was 48 per cent lower than that of the benchmark global index. Indeed, as a weighted average, our carbon footprint was more than 50 per cent below that of the global index.

AP3 has achieved its target of halving the carbon footprint of the listed equity and credit portfolios from 2014 levels by the end of 2018. Read more about our measurement methods for carbon footprint and how we report it at ap3.se.

Timberland plays a key role

When we first measured the carbon footprint of our portfolio, in December 2014, it was found to be carbon-neutral. This was due to the Fund's large holdings of timberland. These are certified by the Forest Stewardship Council (FSC), which guarantees that they are managed sustainably. The AP3 timberland portfolio is a significant factor in reducing carbon footprint and climate impact because forests store carbon dioxide. An analysis of our holdings, which total 205,000 hectares, reveals that they store 38 million tonnes of carbon dioxide – a figure that is even higher when taking into account the carbon dioxide stored in biomass beneath the surface. The annual growth of our forests stores as much carbon dioxide as all the investee companies in our equity portfolio emit together.

AP3's carbon footprint for listed equities¹

	2018	2017	2016	2015	2014
Equity portfolio's absolute greenhouse gas emissions (Scope 1 and 2) (million tonnes of CO ₂ e) ²	1.1	1.2	1.2	1.4	1.5
AP3 vs MSCI ACWI (31 Dec 2018)	-48%	-45%	-47%	-44%	-27%
Carbon intensity by share of investee market capitalisation (thousand tonnes CO ₂ e/SEK m) ³	9.7	9.4	10.2	12.2	17.1
Carbon intensity by share of investee revenue (thousand tonnes CO ₂ e/SEK m) ⁴	15.1	15.7	15.9	18.5	25.3
Carbon dioxide, weighted average (thousand tonnes CO ₂ e/SEK m) ⁵	13.2	14.8	-	-	-
Market capitalisation of AP3 portfolio covered by CO ₂ e-data (SEK billion, 31 Dec 2018)	108.9	126.1	120.5	141.4	94.9
Percentage of share capital for which data exists (%)	78%	83%	78%	81%	76%

1) Measured using shared method agreed with other AP funds.

2) CO₂e (carbon dioxide equivalent) is a measure that facilitates comparison between the climate impacts of different greenhouse gases.

3) AP3's total share of investee emissions divided by total market value of listed equity portfolio.

4) AP3's total share of investee emissions divided by the Fund's share of their revenue.

5) Investees' total share of the AP3 portfolio (based on market value) multiplied by their carbon intensity in relation to revenue.

The formulae for the above measures are available at ap3.se.

Source: Trucost

Investing in listed equities for global growth and innovation

Listed equities give AP3 the opportunity to invest in economic growth and innovation worldwide and form a significant part of our total portfolio.

37.6 %

of total AP3 portfolio consists of listed equities.

Return:
-3.7% (Sweden), -11.5% (World)

Contribution:
-0.2% (Sweden), -4.5% (World)

Listed equities provide an effective way to benefit from economic growth and innovation worldwide. The relative liquidity of the stock market compared to unlisted assets gives a high level of investment flexibility. On the other hand, listed equities carry a high level of risk and are subject to market performance.

AP3 uses various strategies to invest cost-effectively in equities and do not rely on any one sole strategy.

The Fund bases its active management on:

- Fundamental analysis-focused internal management, especially in Sweden and other European markets
- Sustainability-focused external active management in emerging markets.
- In-house quantitative models partly based on innovative machine learning techniques
- Tactical allocation
- Corporate governance

AP3 also conducts passive or enhanced management in some markets to obtain effective market exposure at a low cost.

Analysis-based management

AP3 base the internal management of listed equities in Sweden and Europe on fundamental analysis. APS asset managers make assessments of how a company's earnings potential compares to its market capitalisation. Their expertise and professional judgement are crucial success factors.

Tracking global developments requires us to enlist foreign expertise, and we therefore use external managers in faraway markets and in areas where we lack internal capacity. For the most part, this relates to emerging markets.

Quantitative models

Model-based investment is today an important complement to our analysis-based management and represents a systematic and cost-effective approach. AP3's quantitative analysis and investment modelling operations have increased in the last few years in step with advances in machine learning and artificial intelligence.

Tactical allocation

The most important active decision AP3 makes when it comes to risk and return is the overall level of exposure to the equity market. Using tactical allocation, the Fund vary this exposure according to the understanding of economic trends and fundamental valuations. Forwards and options are an effective way to adjust the portfolio based on changing market realities or shifts in asset prices.

Proactive corporate governance

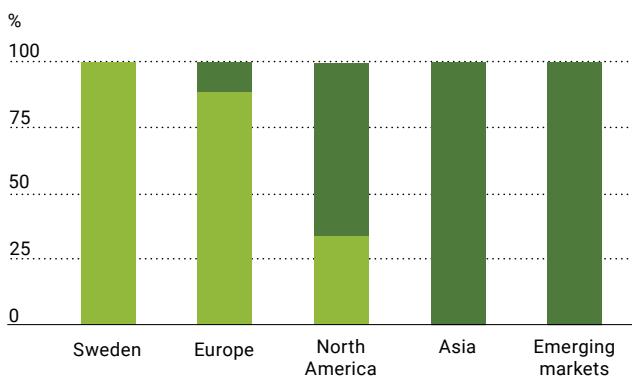
AP3 believes that companies which are well run produce higher risk-adjusted returns over time. In corporate governance, the prime focus is the Swedish equity market as this is where the Fund's ability to exert influence is greatest. At international level, AP3 operates mainly through the AP funds' Council on Ethics and in partnership with other large institutional investors.

Internal/external management in equity portfolio

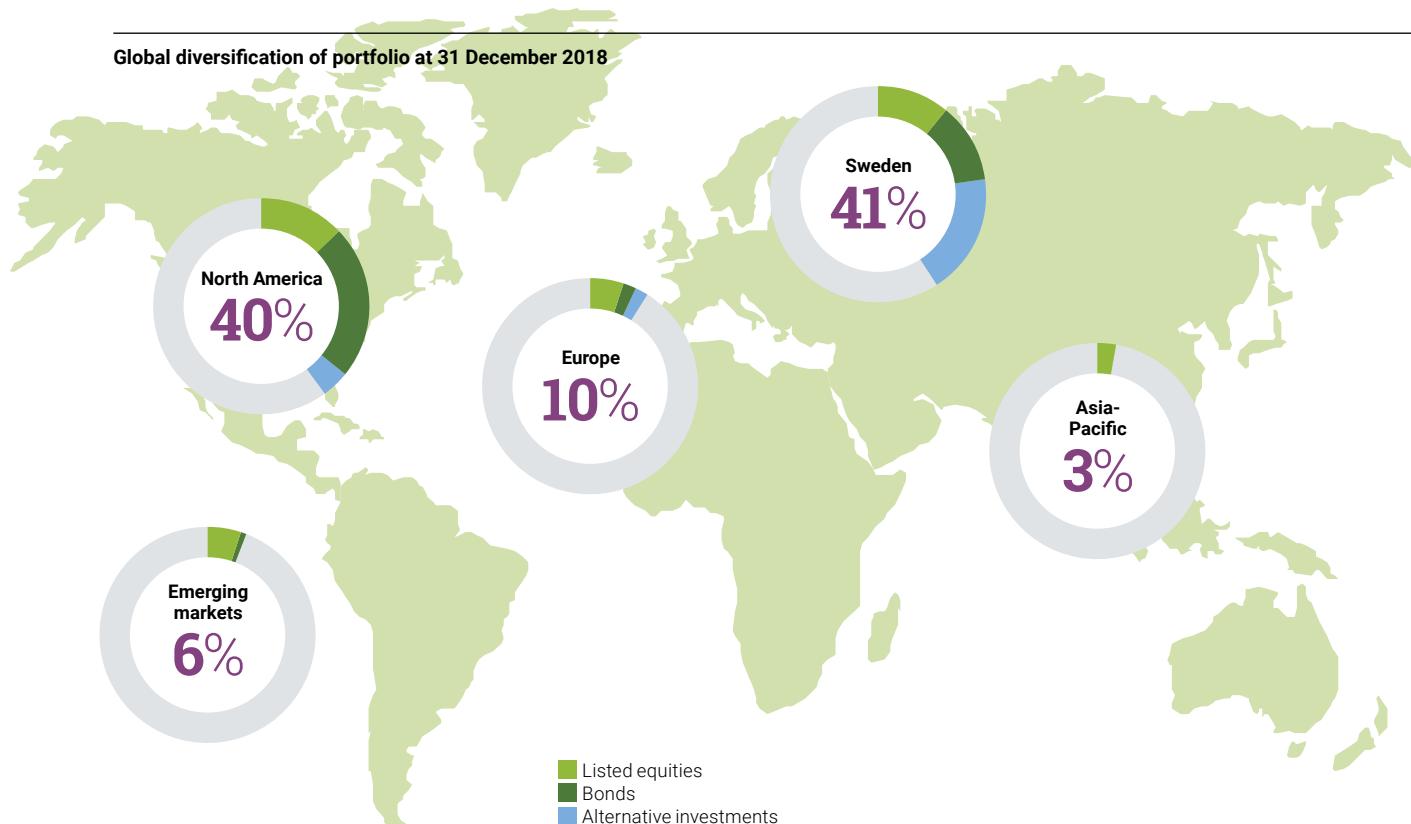


■ Internal management, 54% ■ External management, 46%

Internal/external management by region



■ Internal management ■ External management



Technology sector dominance in 2018

In the equity market, technology shares continued to perform strongly in the first half of the year due to high economic growth and tax cuts in the United States. The technology sector's ability to earn revenue at the expense of more traditional sectors became ever more apparent. This prompted a rush among investors to increase their portfolio weight in technology stocks, which in turn led to a high concentration of ownership in a relatively small number of companies. Currently, the technology sector accounts for 19 per cent of the world index and no less than 28 per cent of the US equity market if you count Amazon, Facebook and Google as technology stocks. At year-end, technology stocks

accounted for 17 per cent of the AP3 equity portfolio. One downside of the increasing importance of technology stocks is an increased risk of government regulation in the sector. The sector dropped sharply in the second half of the year after US companies including Facebook, Apple and Amazon cut their growth forecasts. Chinese companies Tencent and Alibaba, which have also grown into very large entities that dominate their respective markets, also saw their shares fall.

Another feature of 2018 was growing trade tensions. These led to lower trade flows, which had an adverse impact on a number of emerging markets.

37
SEK bn
in Swedish listed
companies

Largest listed Swedish equity holdings

- Volvo AB, SEK 2,3 bn
- Ericsson AB, SEK 2,0 bn
- Investor AB, SEK 2,0 bn
- Swedbank AB, SEK 1,9 bn
- Atlas Copco AB, SEK 1,7 bn

Largest listed foreign equity holdings

- Apple Inc., SEK 1,3 bn
- Microsoft Corp., SEK 1,3 bn
- Alphabet Inc., SEK 1,1 bn
- Nestlé S.A., SEK 1,1 bn
- Amazon.com Inc., SEK 1,1 bn

Private equity funds promote portfolio diversification

AP3 has built a strong platform for private equity fund investments in which the Fund rely on specialist managers with high levels of industry insight and experience.

3.8 %

of the AP3 portfolio is held in private equity funds.

Return: +12.0%
Contribution: +0.5%

Primary reason to invest in private equity

AP3's primary reason for investing in private equity funds is to generate a higher return than from listed equities. The value creation process differs between private equity and listed companies, which means these investments are also a way to diversify the portfolio. AP3 focuses on investing in funds which have demonstrated strong returns over a long period of time and in which our relationships with the fund managers are well-established. We have focused strategically on buyout funds oriented to the mid-cap market.

Greater flexibility with new rules

In the past, legislation from investing limited the Fund more than 5 per cent of assets in unlisted equity. This restricted room for manoeuvre and had a negative impact on

investment returns when, in 2011 and 2012, the rules prevented the Fund from signing new investment commitments. AP3 has made new commitments totalling SEK 13.9 billion to private equity funds in the last five years, and investments in this area are likely to grow further in the future.

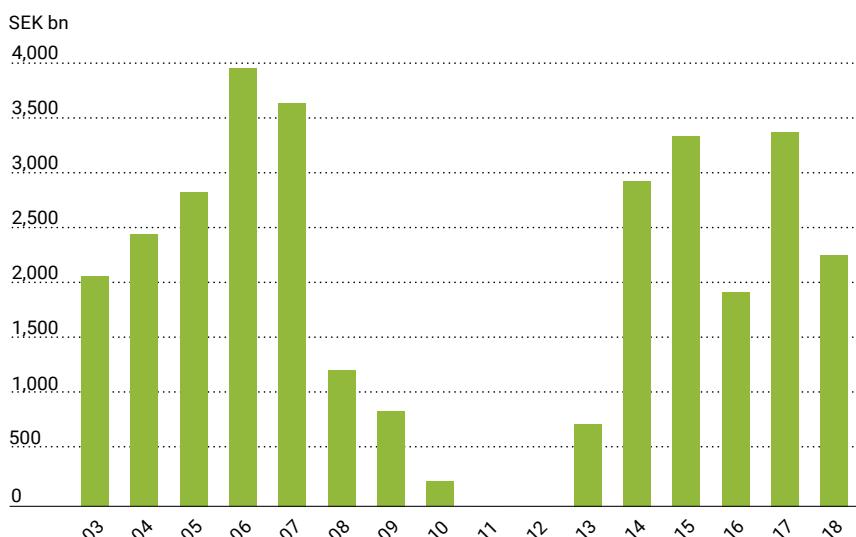
A model that supports responsible ownership

AP3's principal responsibility as an investor is to ensure that our private equity funds act professionally, sustainably and responsibly in combining long-term earnings growth with environmental, social and governance aspects.

Private equity funds acting longer-term

AP3 has been investing in private equity funds since 2001 and during this time the private equity industry has grown sub-

Vintage years – when the commitments were made



Private equity fund commitments

By region



- Asia, SEK 1,6 bn
- Australia, SEK 0.3 bn
- Europe, SEK 7.6 bn
- Global, SEK 5.9 bn
- Nordics, SEK 6.9 bn
- North America, SEK 13.3 bn



1 2 3 4

SUSTAINABILITY GOALS

Strategic sustainable investments – focus on water

AP3 has invested a total of SEK 28.5 billion in strategic sustainable investments. Water-related infrastructure assets are an important segment in this field. The Fund achieved its goal, set in 2014, of doubling its strategic sustainable investments by 2018.

stantially and adopted new longer-term approaches. One example is investors that have shown a direct interest in exercising stewardship in unlisted companies by investing in private equity fund management companies.

Large funds – the trend continues

The private equity market was busy in 2018. The trend of large capital inflows into a small number of large funds continued unabated, though the high unit prices of the companies in which the funds invest put high demands on private equity fund managers. The uninvested capital amassed by private equity funds also reached a new record high in 2018.

Access to water is essential to human life, to food production and to numerous industrial processes. Water-related crises have for many years been seen as one of the largest global sustainability risks, with the potential to adversely affect key social functions and to stunt economic growth. AP3 has investments of SEK 4 billion in water infrastructure. These are part of our strategic sustainable investments portfolio.

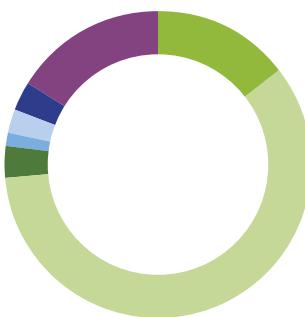
The Fund made no new investments in 2018 but continues to look for interesting investment opportunities in this field. The water-related investments span a range of asset classes and the Fund is always on the lookout for efficient investments that

can make a difference. When it comes to water infrastructure, there is a major need for investment in developed and developing markets alike.

In 2018, the Fund continued to partner with other institutional investors to promote the UN Sustainable Development Goals as a way to reduce obstacles to key water projects and their financing. The Fund participated in a working group that attended a seminar and panel debate at World Water Week to discuss challenges and opportunities in water infrastructure. Partnerships like these are extremely useful for helping stakeholders to learn how to confront the challenges.

Private equity fund commitments

Private equity type



- Balanced, SEK 5.2 bn
- Buyout, SEK 21.0 bn
- Co-investments, SEK 1.3 bn
- Distressed, SEK 0.4 bn
- Growth, SEK 0.9 bn
- Direct secondaries, SEK 1.1 bn
- Venture capital, SEK 5.6 bn





Fixed income and currency exposure reduce risk

AP3 has traditionally used bond investments and currency exposures to diversify the portfolio and reduce risk. However, low interest rates and the relatively weak krona means the Fund cannot rely on the diversification effect of bonds and currencies to the same extent as in the past.

Low return and diversification

The Fund's ability to earn a return and diversify the portfolio through investments in bonds is currently low by historic standards. This is because interest rates are at historic lows and the krona is relatively weak. As a result, AP3 has selected a lower duration for the bond portfolio than would ordinarily be the case.

Active management

AP3 manages the entire bond portfolio internally and actively. The portfolio invests primarily in government bonds denominated in Swedish kronor, US dollars and pounds sterling.

Portfolio duration rose slightly in 2018 due to US bond purchases made after the Federal Reserve raised interest rates during the spring. This investment boosted the portfolio when US bond yields fell during the latter part of the year.

AP3's credit investments remained low

due to the weakness of projected returns during the year, though credit yields rose towards year-end. If this trend continues, AP3 may rekindle its interest in investing in this category.

Credits are currently managed internally, with a strong emphasis on Swedish issuers. Credit holdings correlate naturally with sustainability risk because they are investments that must be sustainable over time and subject to sound financial governance.

Currency exposure

Currency management is an important part of the AP3 investment universe and exerts a strong influence on our overall return. The Fund takes on currency risk by not hedging all foreign holdings and by taking active currency positions. Currency exposure helps to reduce total portfolio risk, and active currency management has been a strong value driver over time.

Measures to increase the robustness of

the AP3 portfolio included an increase in exposure to US dollars in the early part of the year. The continued depreciation of the krona during the year, especially against the dollar, prompted the Fund to decrease currency exposure again prior to an anticipated increase in interest rates by the Swedish Central Bank.

37.5 %

of the AP3 portfolio is invested in bonds.

Return: -1.1%
Contribution: -0.3%



SUSTAINABILITY GOALS

Green bond holdings up threefold in four years



1 2 3 4

AP3 more than achieved its goal of tripling green bonds holdings, from SEK 4.5 billion to SEK 15 billion, by the end of 2018. The Fund's green bond portfolio stood at SEK 16.5 billion at year-end.

The Fund's involvement in green bonds dates back to November 2008, when AP3 invested in the first green bond issued by the World Bank. Since then, issuers have raised more than US\$500 billion through green bonds and these instruments now play a core role in involving financial investors and borrowers in climate-related challenges worldwide. In 2014, a consortium of banks launched the Green Bond Principles to establish an accepted definition of a green bond. The key principle is that the capital from a green bond should be used for projects that benefit the environment.

For AP3, green bonds are a financial instrument that has a direct impact on the borrower's operating activities. The ability to attract capital by issuing green bonds has an effect on the issuer's focus and commitment to environmental issues.

By investing in green bonds, AP3 can play a direct role in deciding what projects the issuer implements. Investments in bonds from issuers like the World Bank, Kommuninvest, Gothenburg Municipality, the Asian Development Bank, the African Development Bank, the Nordic Investment Bank, Hemsö and Fortum Värme, has resulted in

a diversified portfolio that plays a positive role in projects inside and outside Sweden.

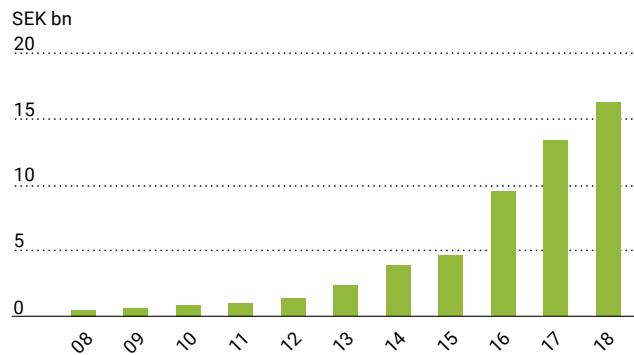
The Fund is committed to helping drive the development of the green bond market and has invested in a green bond fund for emerging markets. As an issuer, the Fund has contributed through green bonds issued by our real estate companies Vasakronan and Hemsö. Vasakronan was the first company in the world to issue a green corporate bond. This has since become a fast-growing market.

Bond portfolio structure



- Government bonds, 67%
- Credit bonds, 15%
- Inflation-indexed bonds, 19%

AP3's green bond portfolio has grown rapidly since 2015



Successful model for real estate management

Return on Swedish commercial real estate remained high in 2018, reflecting a combination of rising property values and higher rents. As prices rise, the Fund sees a clear trend of real estate companies starting up new development projects.

13.4 %

of the AP3 portfolio is invested in real estate.

Return: +22.4%
Contribution: +2.4%

Focus on Swedish real estate

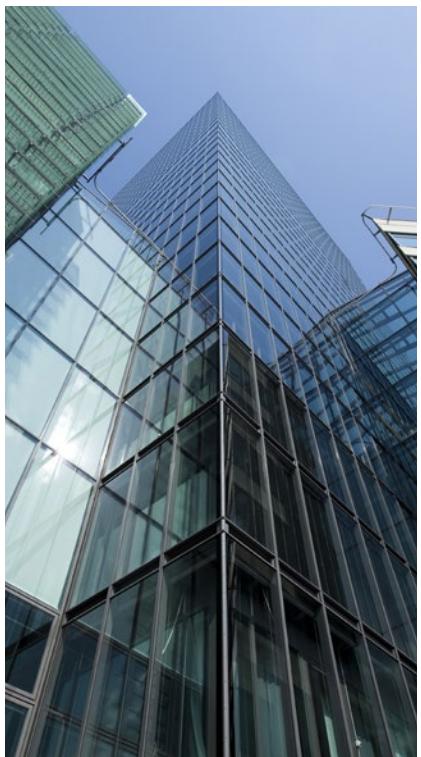
AP3 is strongly focused on the Swedish market, through majority holdings in a number of real estate companies. Establishing companies is also a highly cost-effective way to manage the Fund's real estate capital. Because these businesses have growth potential, they give flexibility in managing capital according to need and at a low marginal cost. The cost of directly owning companies is lower than investing in funds.

Real estate represents a significant portion – 13 per cent – of the AP3 portfolio. Investing in real estate offers high potential for relatively stable returns and a degree of protection from inflation. AP3's unique attributes as an investor help to make this sector profitable:

- Assets with long leases match AP3's long-term investment horizon.
- Illiquid assets tailored to specific operating activities generate a risk premium that raises the investor's potential return.
- Real estate is a physical asset whose total yield over time is linked to the rate of inflation.



The cost of direct company ownership is lower than investing in funds.



1 2 3 4

SUSTAINABILITY GOALS

Climate change transition

AP3's expects its real estate companies to be sector leaders in sustainability, following the lead of Vasakronan – one of the world's top-ranked companies in this field.

The AP3 sustainability target for real estate is qualitative and characterised by a continuous process of improvement within the Fund's directly owned real estate holdings. Vasakronan, in which AP3 has a 25 per cent equity stake, serves as the inspiration for our other real estate companies – Hemsö, Trophi, Regio and Trenum – in their pursuit of ambitious sustainability strategies as they develop and mature.

Vasakronan – one of the world's most sustainable real estate companies

Established in 2008, Vasakronan focuses on delivering high and stable returns over the long term. A carefully planned and implemented strategy has enabled the company to halve energy consumption in its properties, to reduce carbon emissions from its business activities by almost 100 per cent and to achieve environmental certification for a large part of its portfolio.

In 2010, Vasakronan became the first Swedish real estate company to launch green leases. Today, these are the industry standard. Proof that the company is moving in the right direction came with the 2018 Global Real Estate Sustainable Benchmark (GRESB), which ranked Vasakronan as the European number one in office property and the world's ninth most sustainable real estate company.

5.2 %

VASAKRONAN

AP3 owns Vasakronan jointly with AP1, AP2 and AP4. Each fund has a 25 per cent equity stake. Vasakronan is Sweden's largest real estate company, with a portfolio worth SEK 139 SEK billion. The company manages and develops commercial property in growth-friendly locations in Sweden including Stockholm, Gothenburg, the Öresund region, and Uppsala.

4.1 %

HEMSÖ

Hemsö is Sweden's largest owner of property for nursing homes, education, care facilities and penal institutions. The portfolio has a market value of SEK 46.2 billion. The company operates primarily in Sweden but also owns properties in Finland and Germany. Hemsö is jointly owned by AP3, which holds 85 per cent of the equity, and 15 per cent of Sagax.

1.8 %

TROPHI

Trophi is a leading owner of retail property in Sweden and Finland, with a portfolio valued at SEK 13.3 billion. Its largest tenants are Coop (22 per cent of total rental income), ICA (20 per cent) and Axfood (17 per cent). Trophi is wholly owned by AP3.

1.0 %

REGIO

Regio is a strategic and active owner of office and retail property in major towns and large city suburbs. The company works closely with Swedish municipalities and local real estate owners in developing its locations. Today Regio owns properties in 19 different locations in Sweden with a combined market value of SEK 7.9 billion. AP3 owns 96 per cent of Regio's equity alongside minority owner and property manager Brunswick Real Estate.

0.7 %

TRENUM

Trenum's business concept is to invest in new leasehold property in Swedish growth regions. The company's portfolio has a market value of SEK 6.3 billion. Trenum is jointly owned in equal shares by AP3 and Balder.

0.5 %

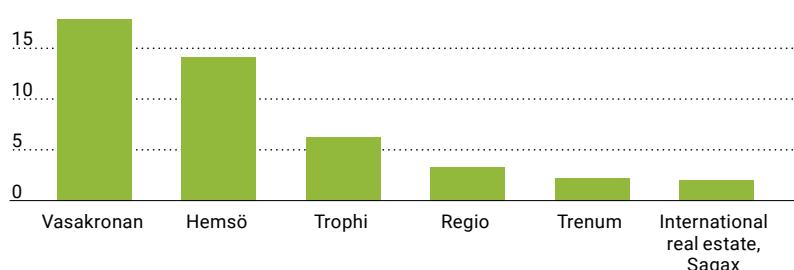
OTHER

AP3's real estate investments also include international real estate funds and a strategic holding in partner company Sagax.

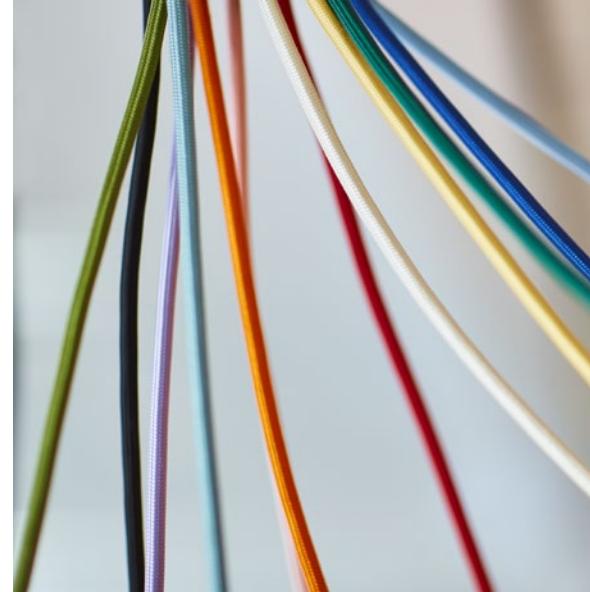
Real estate portfolio

SEK bn

20



45.5
SEK bn
property market
value



Infrastructure of the future

Infrastructure investments are in line with AP3's long-term mission. The Fund actively support the National Pension Insurance Funds Act to allow increased investment scope in this area.

4.5 %

of the AP3 portfolio is invested in infrastructure.

Return: +11.5%
Contribution: +0.5%

Suitable investment class for long-term investors

Society's need for infrastructure development and redevelopment requires access to long-term sources of capital and finance. AP3's characteristics as an investor make infrastructure a suitable investment vehicle for the Fund:

- It connects a long-term ownership commitment with assets that are often managed under long contracts.
- It offers good prospects of a relatively stable return.
- Illiquid assets tailored to specific operating activities generate a risk premium that offers the investor a higher potential return.
- Infrastructure consists primarily of physical assets whose return and value are linked to inflation.
- Infrastructure assets are a key pillar of sustainable social development.

At present, the National Pension Insurance Funds Act does not permit general investments in infrastructure assets. It only allows investments that are classified as real estate. AP3 has proposed amending the act to make it possible to invest in different types of infrastructure companies.

Focus on Swedish market

The Fund has a strong focus on the Swedish market, and most of our unlisted invest-

ments are based in Sweden. These largely take the form of owning and running real estate companies, either on our own or in partnership with other investors. This model is also applicable to dedicated infrastructure investments:

- AP3 can better capitalise on its strength as a long-term investor by owning companies rather than investing funds with a limited life.
- Running proprietary businesses is an effective way to manage assets.
- The growth potential of these companies gives AP3 flexibility in managing capital according to need and at a low marginal cost.

Currently, AP3 also invests in international infrastructure funds. Generally, these investments do not offer the advantages of direct ownership, but they can sometimes be the most effective way to invest in this asset class outside Sweden.

Building tomorrow's infrastructure

AP3 is busily engaged in investing in the Swedish infrastructure of tomorrow. The electricity distribution company Ellevio is a prime example. The investment in Ellevio, was made in 2015, illustrates how the Fund can combine characteristics as an investor with international expertise in a specific field. Ellevio is committed to developing strong competence in electrification and the transition to clean energy. Its knowledge in these areas has the potential to benefit AP3's investments in other contexts.



Infrastructure investment gives flexibility in managing capital according to need and at a low marginal cost.

Ellevio – building the energy systems of the future

Ellevio is one of Sweden's largest electricity distributors, with close to 1 million customers in central regions and in Stockholm. The combination of AP3's ownership, Ellevio's innovative capacity and an ongoing transition to energy-saving solutions adds up to a sustainable investment for AP3.

Key to the energy transition paradigm

Ellevio is one of Sweden's largest electricity distributors, with close to 1 million customers in central regions and in Stockholm. The company is regulated by the Electricity Act and distributes energy from the state-owned national grid to end-customers. Ensuring a reliable supply of energy carries responsibility. In Ellevio's case, the company will have invested around SEK 10 billion between 2016 and the end of 2019.

The next decade is expected to see Sweden and many other parts of the world undergo an energy transition in which electrification will play an integral role. Sweden, which has high capacity in clean energy, is well positioned to undergo this shift. However, large investments will be needed – not only in electricity generation but also in Ellevio's business of distributing electricity to the user.

As society's dependence on electricity grows, so does the need for reliable supply.

Long-term core business

The task of assuring electricity distribution for future generations requires Ellevio to plan decades ahead at a time when the industry is witnessing its biggest changes in modern times. It is difficult to predict exactly

Long-term investment that stores carbon

AP3 invests in timberland primarily through approximately 10 forestry funds and also directly in forest land.

what the future will look like, and what technological innovations will dominate the landscape. What we do know is that high levels of expertise and flexibility will be needed, along with players who are prepared to play an active role in shaping events.

The combination of AP3 as a long-term owner, Ellevio's innovative capacity and a transition towards smart, energy-saving solutions makes Ellevio a good investment that is well placed to create value for society and investment returns in the future.

Electrification revolution helping to achieve climate goals

Reducing carbon emissions in part requires a shift to electric vehicles. Sweden has a national goal to be fossil-fuel-free by 2030 en route to its target of zero net greenhouse emissions by 2045. Rising electricity consumption will mean a growing need for electricity generation and distribution. More effective use of energy generated will require the control and distribution technology currently in place to be comprehensively upgraded.

The internal combustion engine revolutionised the transport sector 100 years ago. Electrification will propel us into the next phase. So far, this revolution has been surprisingly fast and broad-based.

From a sustainability perspective, the impacts on society range from positive to negative. On the positive side are more efficient energy use, no direct emissions, lower noise pollution, reduced wear and tear and lower maintenance costs. Negative aspects include the risk of pollution from components production and recycling and increased demand for electricity.

The latter challenge, however, can be partly met by renewable energy – which already today can be produced at a lower cost than coal-based alternatives. Overall, the effects of the transition are surprisingly positive, albeit difficult to foresee and plan for in many industries today.

1.5 %

of the AP3 portfolio is invested in timberland.

Return: +4.5%
Contribution: +0.2%

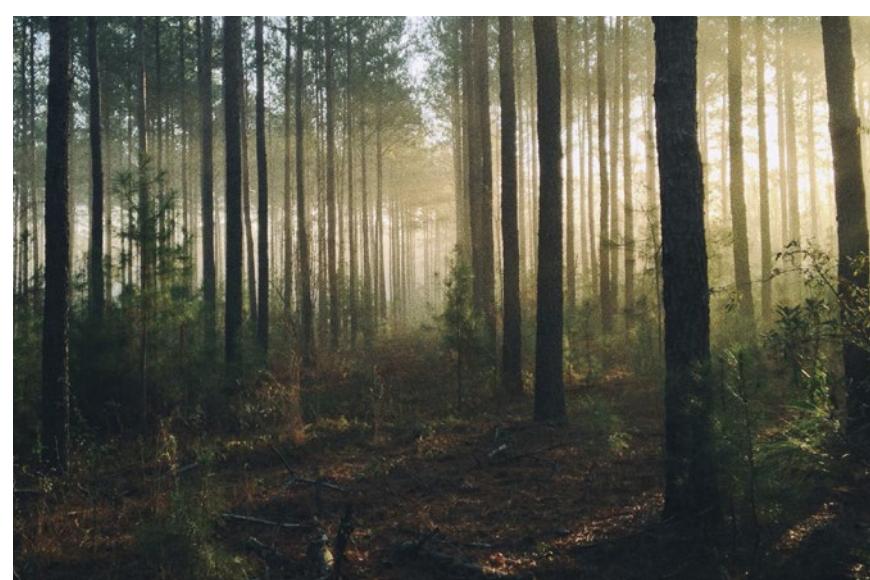
term investment for AP3. Forests take decades to grow and as they do so they store carbon dioxide.

Forest growth is also independent of the business cycle, which helps to stabilise portfolio returns from year to year. Indeed, the portfolio is equipped to deliver returns even if climate scenarios turn negative. Increased atmospheric carbon and higher temperatures due to global warming can be expected to promote faster tree growth in Sweden's forests.

Forests are the historic source of raw material for the pulp and timber industries and remain so today. At the same time, new segments – such as wood chips, biofuel and alternative materials – are also emerging. By working closely with strategic partners, AP3 can help to provide sustainable wood-based products to the industrial sector.



Forests grow and store carbon dioxide independently of the business cycle.



Insurance risk – a systematic strategy

AP3 has been investing in different types of insurance-, climate- and weather-related securities since 2008. These include catastrophe bonds, which are traded outside the traditional financial markets. Returns on these instruments have a low correlation with other investments, which means they contribute to stabilise overall return over time.

1.6 %

of the AP3 portfolio is invested
in insurance risk.

Return: 1.0%
Contribution: 0.0%

Investments in insurance risk are strategic, long-term and help to make insurance markets more efficient. Catastrophe insurance helps to channel capital quickly to disaster areas.

From AP3's side, it is about systematically taking on different types of insurance risk, for instance the risk of hurricanes, earthquakes or flooding. During years when disaster occurrence is low, the Fund can expect to achieve good returns. In years when disasters are more prevalent, significant losses can arise. It is this risk that AP3 is paid to take on. Over time, the Fund expect to earn favourable risk-adjusted returns in this area.

Expertise and effective networks

AP3 has developed specialist competence in this area and built effective networks by connecting with strategic partners, universities and research institutions. This strategy illustrates a long-term approach and ability to conduct effective internal management of complex assets. The results have been positive, especially during disaster-affected years like 2011 and 2017. By analysing and monitoring climate trends the Fund has been able to make well-balanced investment decisions. The climate change process may be rapid geologically speaking, but from a



financial perspective it is slow. The instruments that AP3 invests in have a maturity of three years, which means that their pricing adjusts much faster than the risk of climate change itself.

An alternative way to generate investment returns

Absolute return strategies provide a mechanism for AP3 to generate returns differently from our other investments. The aim is to achieve returns that have a low correlation to the rest of the portfolio.

1.8 %

of AP3's portfolio is invested in absolute return strategies.

Alternative risk premiums

Alternative risk premiums form part of AP3's absolute return strategies and involve exposure to risk premiums such as value, quality, momentum and volatility. These risk premia are also found in AP3's other investments but only to a small degree.

During the year AP3 reduced exposure to these strategies. The Fund is working to develop more innovative quantitative-based strategies that serve the same purpose: generating returns that have a limited covariance with major equity market movements.

MONITORING OF ABSOLUTE RETURN STRATEGIES

Facts

- Return and risk of each strategy
- Share of risk of total portfolio for absolute return strategies
- Correlation between strategies
- Risk factor analysis of individual

AP3 develops absolute return strategies both internally and externally. The return targets applied in this area mirror the rest of the portfolio, but are higher in nominal terms for external strategies as they come with higher costs and a lower level of oversight than the internal strategies do.

Absolute return strategies

AP3 has long utilised a broad range of internal absolute return strategies. These are structured as individual risk-based strategies where good potential exists to generate positive returns over time. AP3 monitors them from a portfolio perspective, which makes it possible to evaluate the degree to which they complement the wider portfolio.

AP3's external absolute return strategies are primarily in hedge funds. AP3 has scaled back these investments in recent years due to the difficulties that hedge funds have experienced in meeting investor expectations when it comes to the relationship between return, risk and cost. Hedge funds have struggled to generate returns in the current market environment.



AP3 is well positioned to achieve favourable returns over time.



Commitment and driving change the pillars of AP3's stewardship

Commitment and driving change are the cornerstone on which AP3's corporate stewardship is built. The Fund's strength and size in the capital market gives ability to advocate for AP3 views and to place demands on investee companies.

AP3 is a committed owner that works proactively to encourage investees to embrace positive change. This is the foundation of our stewardship. The Fund focus on areas and investees where we are best able to exert a positive influence, which in our case means the Swedish equity market. At international level, AP3 works closely with the other AP funds via the Council on Ethics and with other large institutional investors for maximum impact.

Different strategies for different holdings

AP3 has holdings in close to 3,000 companies, 180 of which are Swedish. The Fund apply different engagement strategies, depending on the nature of the ownership. The stewardship focuses on the areas in which the Fund can make an impact and where ability to exert influence can be maximised.

In cases where the Fund owns all or a large share of the equity – notably in the unlisted real estate companies Vasakronan, Hemsö, Trophi, Regio and Trenum – the Fund exert direct influence over corporate strategy by holding board positions.

AP3's voting rights are larger in Swedish companies, and here the engagement is primarily done through direct dialogue with

investees and by voting at AGMs and participating in nomination processes.

In foreign listed companies, where shareholdings are smaller, the ability to exert influence is more limited. Here, the Fund often work with other institutional investors, primarily via the AP funds' Council on Ethics.

Wide-ranging engagement

The Fund bases stewardship on a series of fundamental issues, regardless of investee or location:

- Influence the structure of remuneration programmes.
- Curb overly generous mandates to implement changes in capital structure.
- Increase diversity in corporate boards.
- Separate the roles of CEO and chairman of the board.
- Labour and workplace practices
- Anti-corruption.

Dialogue continues

We exert influence by engaging directors, management and investors in dialogue, by participating in nomination processes and by voting at company meetings. Sometimes the effects are clear and immediate, but

stewardship is usually a gradual process that takes time.

AP3 has long worked with other investors to promote greater diversity in corporate board recruitment. This is a long-term project, but one that is moving in the right direction. Making our views known to foreign investees is a natural part of the dialogues we engage in through the AP funds' Council on Ethics. We also initiate dialogues and communicate annually with around 50 foreign investees to explain why we voted against certain AGM resolutions. In these engagements focus areas have included fundamental issues where the investee falls short of our requirements, including board composition, rights issues and remuneration programmes. The Fund have also raised questions about carbon emissions to communicate to the investee the importance of having a climate strategy that measures and reports on carbon footprint and guides the organisation towards reducing climate impacts. The aim is to engage in dialogue that develops and grows, leading the investee to gain a broader understanding of the issues that AP3 sees as crucial to progressive social development.

Stewardship varies with size of AP3's holding



The Council on Ethics – cooperation to drive engagement and impact

The Council on Ethics' role is to encourage companies to take a structured and systematic approach to sustainability and to increase their transparency on responsible business practices.

The Council works to safeguard the AP funds' long-term investment returns by exerting its influence to ensure investees act responsibly in environmental, social and governance aspects. The Council on Ethics engages with industries and foreign companies in which serious and systematic problems have emerged and where violations of international treaties signed by Sweden have been identified. Through dialogue, the Council tries to persuade the companies to identify the problems and establish action plans to address them. The Council on Ethics promotes introduction of preventive systems and measures to prevent future violations. The Council also takes part in industry and investor initiatives aimed at encouraging companies to be more transparent and to act more responsibly.

In 2018 the Council maintained its focus on core business activities, reactive dialogue and preventive measures and continued to step up its focus on projects centred

on the mining, palm oil, cocoa and tobacco industries. Anti-corruption is an important issue because corrupt practices undermine the legitimacy and sustainability of the economic system. Likewise, human rights and approaches to climate and environmental protection are also priority issues managed by each fund according to their different strategies.

Exclusion the last resort

In 2018 the AP3 board of directors approved a recommendation from the Council on Ethics to exclude three Canadian companies from the portfolio due to their involvement in the cannabis industry. The background to this decision was the legalisation in October of cannabis use in Canada. The companies' operations were deemed to contravene UN conventions on narcotics, prompting the AP3 board to exclude them from the portfolio.



The Council on Ethics' principles are built on the core values of the Swedish government, for which democracy, basic rights and freedoms, equality and the dignity of all individuals are core pillars.



Working conditions in the meat processing industry

The Council on Ethics in 2018 continued its efforts to improve working conditions in the meat and poultry processing industries. JBS, the world's largest meat producer, and Pilgrim's Pride, the world's second largest chicken producer, have been repeatedly fined for breaching health and safety at work laws. Constructive engagement with Pilgrim's Pride resulted in the company publishing a sustainability report and also providing the Council on Ethics with details of its health and safety policy and measures taken to address shortcomings in its reporting. The Council will continue the dialogue to ensure that improvement measures are undertaken.

Joint initiatives – working together to make a difference

Pooling resources is a key part of AP3's strategy to make a difference. A shared approach increases our global impact and makes better and more efficient use of our resources.

Advocating together

Cooperation with other investors is an essential part of AP3's strategy to maximise impact and drive positive change towards sustainable business practices. AP3 supports various preventive sector-based initiatives and partnerships that are in line with the sustainability strategy. Some of this work takes place via the AP funds' Council on Ethics and some is done directly by the Fund. Depending on the type of initiative and level of cooperation, AP3's engagement ranges from being hands-on to playing a more supportive role.

Partnering with large investors

One initiative in which the Fund takes a more active role concerns remuneration levels in international companies. Here, AP3 work closely with some of the largest European pension funds – from the Netherlands, Denmark, the UK and Sweden – to engage with a group of 15 or so large European and US corporations. The Fund sees many advantages in working together in such matters, including sharing workload and insights and achieving a greater impact. Between them, the pension funds involved in this investor initiative have more than US\$1.1 trillion of assets under management.

Global initiatives

Global agreements are especially important for AP3 in the area of sustainability. These agreements include:

- The UN Principles for Responsible Investment
- The OECD Guidelines for Multinational Enterprises
- The ILO's core conventions on forced labour, child work, labour practices, equal treatment and freedom of association
- The UN Declaration on Human Rights and the Ruggie Principles
- The UN Global Compact
- The UN Sustainable Development Goals (SDGs)

AP3 also backs the recommendations of the Taskforce on Climate-related Financial Disclosure (TCFD). The Fund believes that the TCFD framework will increase corporate transparency and give investors the information they need to assess businesses' climate-related risks and opportunities. The framework also serves as a tool for AP3 to describe and communicate climate-related activities.

Collaboration with other AP funds

Dividing the task of managing the pension system's capital buffer between four funds has proven an effective way to create healthy competition and to ensure efficient asset management. The funds work together in areas where we do not compete, thereby driving down costs and using resources effectively. One of the most important vehicles for partnership is the AP funds' Council on Ethics, which engages with listed investees on environmental and social issues. The funds collaborate in nine groups to standardise administrative practices and to share knowledge and procurement costs.

The list of groups is:

- The Council on Ethics
- CEO meetings
- Cooperation Council
- Accounting group
- HR managers' group
- IT managers' group
- Business control
- Legal group
- Heads of communication group
- Risk and performance group

Selected global initiatives in which AP3 participates

Signatory of:



The UN Principles for Responsible Investment are a global initiative to support institutional investors in their investment decisions and corporate governance, thereby creating value for their beneficiaries.



The CDP is an initiative in which 100 large institutions require the world's largest listed corporations to disclose their greenhouse gas emissions and other climate-related data.



The IIGCC is a European investors' forum for collaboration on climate change issues. It aims to give investors a collective voice on climate change and to engage companies, government authorities and investors in addressing the long-term risks and opportunities resulting from climate change.

UN Global Goals – a pivotal sustainability guide for AP3

The 17 UN Global Goals for Sustainable Development serve as guidelines for global collaboration between governments, society and the business sector.

Along with the other AP funds, AP3 supports the Global Goals. In collaboration with a group of Europe's largest pension funds, we are signatories to a statement stressing the importance of institutional investors allocating their capital to companies and solutions that actively contribute to the Global Goals. This collaboration won the

group an award in the "collaborations" category of the Responsible Investor Awards for Innovation & Industry Leadership 2017: Leading Institutional Investors Committing to the SDGs.

AP3 always aims to put respect for human rights first in the investing activities. The Fund is committed to continuing to stress

the importance of human rights through different projects. A selection of AP3 activities, related to the Global Goals, are shown below.



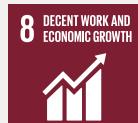
Goal 6: Clean water and sanitation

AP3 has invested in water infrastructure, including water supply and water treatment facilities. We work with other investors to create further investment opportunities in the water sector.



Goal 7: Affordable and clean energy

Solar power is becoming increasingly important for real estate companies, and there is increasing take-up of this technology as it develops and becomes more efficient. Vasakronan, owned by the AP funds, is one company championing this trend. AP3 also invests in private equity funds and in listed companies specialising in clean and renewable energy.



Goal 8: Decent work and economic growth

Labour practices, health and safety are priority issues for AP3. The Fund engages with investees to combat unsafe working conditions, workplace accidents, discrimination and child labour.



Goal 9: Resilient and sustainable infrastructure

Modern and effective infrastructure promotes economic growth and development. AP3's investments and corporate stewardship contribute to increased efficiency in resource utilisation, higher production capacity, and flexible solutions in a changing world.



Goal 11: Sustainable cities and communities

AP3's large investment holdings and active corporate stewardship make the Fund a strong advocate. Vasakronan is a leader in energy-saving and efficient office spaces and serves as a model for our other real estate investees.



Goal 13: Climate action

By the end of 2018, AP3 had halved the carbon footprint of the listed equity and credit portfolios. Substantial investments in timberland and green bonds have delivered a portfolio that today is carbon-neutral. AP3 also takes account of investees' carbon footprint and climate impacts when investing.



Committed employees strengthen our performance

Managing the pensions of the Swedish population is an important mission in which it is vital to retain public trust. It is important to act at all times with responsibility, professionalism, transparency and a sustainable mindset.

AP3 is a knowledge-intensive organisation, and the collective expertise and experience of our employees is critical to our performance. A group of 60 or so employees manage a global investment portfolio. All parts of the organisation should be leaders in their fields. This requires continuous learning and a wide global contact network. It also requires a strong operating infrastructure of portfolio management systems and other support functions.

AP3 offers its employees

- Clear roles founded on personal responsibility that span a diverse range of tasks in a professional investment management environment.
- Contacts and interaction with other international organisations at the forefront of economic and financial developments.

- A work environment that promotes personal development by encouraging personal initiative, creativity and collaboration.
- An inclusive and equal workplace. Diversity is a core value and AP3 works actively to promote it.

At the leading edge

Operating at the leading edge demands continuous development both as employees and as an organisation through training, seminars and conferences. Efforts during the year focused on our internal AP3 academy, where we hosted external and internal speakers. In leadership development, the spotlight was on communication. We also continued with a specialists' programme that operates jointly with AP1, AP4 and AP7. During the year AP3 conducted an

employee survey. The results showed the Fund to be a good place to work and one that its employees are proud of. There is always room for improvement and there are identified priority areas for future attention. Efforts across this area rely on the commitment and dedication of all employees.

Fredrik Giertz, Head of Quantitative Strategies Function

» AP3 is an organisation that prioritises the creativity of its employees and where an innovative and progressive spirit takes centre stage, both among employees and within our different business groups.

For me, AP3 is a very stimulating place to work because I'm able to develop in areas I'm passionate about and that play a part in increasing the Fund's value and value creation. This, together with the important role AP3 plays in society, makes the Fund a very attractive employer in my eyes.

**Carolina Tjärnå, Portfolio Manager**

» I find it rewarding to be part of the process of managing our assets responsibly to ensure we generate a good return over the longer term.

As a fund managing the buffer capital, AP3 plays an important role in the Swedish income pension system. The portfolio is highly diversified, both in terms of asset types and geographies, which means my colleagues are both highly experienced and also have a wide range of expertise. Because we are a small organisation, we need to work constructively together and take a lot of personal responsibility to succeed.

Henrik Nordlander, Portfolio Manager

» AP3 is a professional organisation with extensive experience in, and knowledge of, alternative investments as well as specialised asset management.

It's exciting being part of such a large investment fund with a strong long-term focus on ethical and sustainable investment. Working here is all about trust, which inspires me to develop and learn while also showing initiative and taking on responsibility. For me, investing capital on behalf of Sweden's pensioners is a truly important mandate.

**Eva Boric, CRO and CFO**

» A typical day might consist of strategic discussions and coming up with hands-on solutions to handle practical matters. It's interesting and varied.

Being part of a small organisation gives me insight into many different areas and allows me to see the big picture differently than would be the case in a large company. A typical day might consist of strategic discussions and coming up with hands-on solutions to practical matters. It's interesting and varied. There's plenty of scope to be self-starting, and our short decision-making channels mean I can see clear results from the changes I've helped to implement. What we do as a fund has a clear meaning and public benefit. That inspires me to make a difference.

I very much enjoy being part of our strong culture with its shared goals, clear focus and friendly atmosphere. The constant flow of information and all the clever and interesting people who work here and who are generous with their knowledge make it a

constant learning experience. The Fund invests heavily in skills enhancement through lectures and knowledge-sharing initiatives.





Investment evaluation

The board of directors continuously reviews asset management operations over an extended period of time. Reviews use four metrics that are based on the Fund's financial and sustainability goals.

1 Return compared to target of 4% real return

AP3 evaluates the Fund's performance against our portfolio targets since inception in 2001 and over rolling 10-year periods. Real return since inception stands at 4.2% per annum. In the last 10 years, this figure has been considerably higher – 7.4% per annum.

2 Return compared to long-term static portfolio (LSP)

Investment returns are benchmarked against a long-term static portfolio (LSP) that represents the cheapest available alternative. The LSP has a 50:50 mix of listed equities and bonds. It is rebalanced monthly and is not encumbered with transaction costs. The LSP represents a portfolio that is capable of achieving a real annual return of 4% over time.

Benchmarking performance against the LSP evaluates the efficacy of the AP3 approach, which involves the Fund investing in a more sophisticated asset management model and a higher ratio of active management. In 2018 the AP3 portfolio generated a positive return of 0.6%, while the LSP recorded a negative return of 2.5%. In monetary terms, this corresponds to a difference of SEK 10.6 billion. Since the benchmarking process was introduced in 2012, AP3's investment management has outperformed the LSP by 28 percentage points, which represents a gain of SEK 53 billion for the pension system.

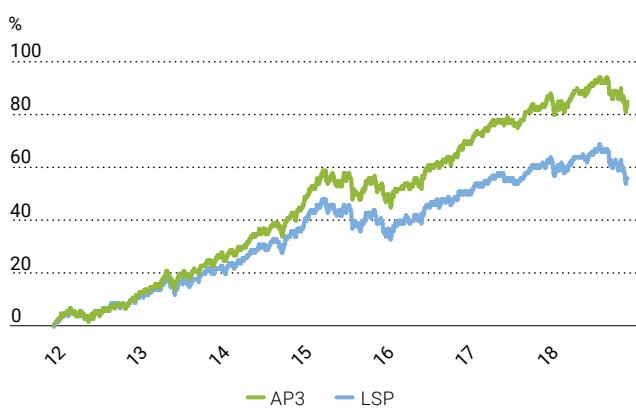
3 Key figures benchmarked against peer group

AP3 aims to meet a high international standard in asset management and compare costs and expenses to a benchmark group of international investors. The benchmark funds are selected by consultancy firm CEM Benchmarking and have similar profiles to AP3 in terms of assets under management, target returns and overall mission. In 2013-2017, AP3's expenses were 36% lower than the benchmark group average. In that period, AP3 recorded an annual return of 10.5%, compared to 9.1% for the benchmark group.

4 Evaluation of sustainability goals

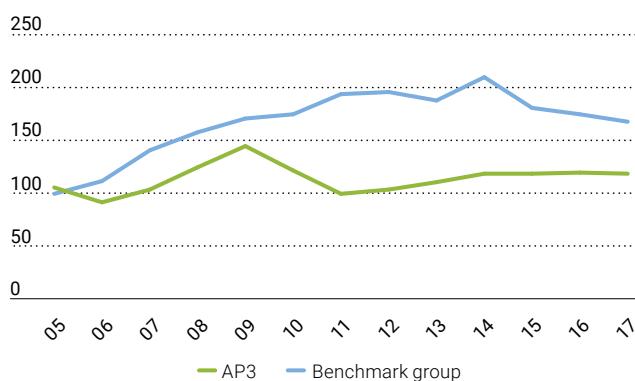
In 2014 AP3 introduced four climate-related sustainability goals to be achieved by 2018. The Fund firmly believes that setting measurable targets drives positive change. The goals focused on areas in which AP3 was best placed to exert an impact without compromising its mission to maximise investment returns. The goals were to halve the carbon footprint of listed equity and credit holdings, to triple investments in green bonds, to double strategic sustainability investments, and to drive the development of green real estate. As of 31 December 2018, the Fund had reached all four goals. Read more about AP3's sustainability goals on pages 18-19, 23, 25 and 26.

AP3 versus LSP, indexed performance 2012-2018



Since the launch of the benchmarking process in 2012, AP3's investment returns have outperformed the LSP by 28 percentage points.

Expenses, indexed 2005-2017



As of 2005, AP3 participates in an annual international survey led by the Canadian consultancy CEM Benchmarking. The survey compares AP3 with other international pension funds that have similar profiles. The most recent survey, conducted in 2017, found AP3's costs to be 36% lower than those of its international peers.

Fund governance report

This fund governance report was prepared in conformity with the Annual Accounts Act and relevant parts of the Swedish Code of Corporate Governance. It includes information about the Fund's governance, the administration, work and remuneration of the board of directors and a summary of board activities during the year.

Government body

Along with the other AP funds, AP3 is a government body whose operating activities are prescribed by the National Pension Insurance Funds Act (2000:192). The government has waived its regulatory oversight over the funds, which thereby differ from other government bodies in their autonomy from the government.

Board of directors

The AP3 board of directors has nine members, all appointed by the government. Two directors are appointed from nominees of employee organisations and a further two directors are appointed from the nominees of employer organisations. The government appoints the Chairman and Deputy Chairman from its own nominees. The government's Policy for Governance and Evaluation of the AP Funds stipulates that it is reasonable for directors to serve a maximum term of eight years.

Board administration

The National Pension Insurance Funds Act gives the board of directors full and collective responsibility for AP3's operations and administration, within the parameters set by Parliament. Board responsibilities and activities not prescribed by statute are set out in the board's work plan, which is approved annually by the directors.

The National Pension Insurance Funds Act also requires the board of directors to approve an annual operating plan. The operating plan must contain guidelines for investing activities and for exercising AP3's voting rights in investee companies. It must also contain a risk management plan. Beyond this, the board of directors' primary tasks are setting operating targets, recruiting and monitoring the performance of the CEO, managing strategic documents and making decisions on overall Fund strategy, including risk levels, exposure and risk thresholds, results of operations, budget approval and monitoring, and resource allocation.

At every board meeting the directors discuss current allocations and any potential changes to the portfolio. The model applicable up to and including 2018 mandates

the board of directors to set the upper and lower limits for how much capital can be invested in each asset class. Execution of these limits is delegated to the CEO. Effective control and monitoring are necessary to ensure that board decisions are implemented, that risk management is effectual and that the Fund operates in an appropriate manner.

The risk management plan sets the framework for control and compliance. The board of directors has the task of approving the corporate stewardship policy and managing other governance issues such as the Fund's focus areas prior to each AGM season. When it comes to stewardship, the board of directors does not normally decide the Fund's actions in individual cases. Such matters are delegated to the CEO. However, any decision to exclude a company from the Fund's investment universe will be taken by the board.

The CEO and other AP3 employees also attend board meetings as experts or in a reporting capacity.

Review of board administration

The board of directors reviews its performance once a year. The 2018 review will be carried out by external consultants in spring 2019.

Board of directors committees

The board of directors has two committees: the audit committee and the remuneration committee.

1 The audit committee has an advisory and oversight role on behalf of the board of directors and also supervises financial reporting and monitors the audit process. The Fund's auditors attend the audit committee meetings at which the final audit and audit management are discussed. The audit committee also monitors the efficacy of internal control and risk management. This involves preparing decisions for the board of directors to approve on the risk management plan, following up on the annual operating risk review, overseeing internal audit, and ensuring that all reviews and reports are communicated to the committee

and to the board, and that any comments or deficiencies are addressed.

The audit committee also acts to ensure the impartiality and independence of the auditors. In 2018 the audit committee members were Björn Börjesson (chair), Malin Björkmo and Kerstin Lindberg Göransson.

2 The remuneration committee is tasked with ensuring that salaries and other remuneration are market-based, competitive, appropriate and reasonable. The committee oversees and monitors the implementation of government guidelines on remuneration and benefits to senior executives of the AP funds.

The remuneration committee reviews the CEO's salary and benefits and approves the salary and benefits of senior executives on the recommendation of the CEO. It also prepares the remuneration framework for other employees on behalf of the board of directors and evaluates the Fund's performance-based remuneration system.

In June 2018 Lars Ernsäter and Peter Hellberg left the board of directors and the remuneration committee and were replaced by Torbjörn Hållö and Elisabeth Unell. Pär Nuder remains chair of the committee. The CEO serves as a co-opted member in all issues not relating to her personal remuneration.

Remuneration of directors

The government sets the fees and other remuneration payable to directors. Board fees are SEK 100,000 per year for the Chairman, SEK 75,000 for the Deputy Chairman and SEK 50,000 for other directors. These levels were unchanged from the prior year and remain at the level set on the date of AP3's inception in 2000. The government has an annual fund of SEK 100,000 to remunerate directors for committee work and other assignments. In 2018 the board of directors used this fund to pay fees of SEK 26,520 to the chair of the audit committee and SEK 21,220 to other audit committee members, and fees of SEK 10,300 to each remuneration committee member (including the chair).

Board administration in 2018

The board of directors held six scheduled meetings during the year. In addition to its task of finalising the annual accounts, budget, operating plan and risk management plan, the board's work in 2018 included:

Changes in regulatory guidelines and review of risk management framework

In November 2018 Parliament approved changes to the guidelines governing the operations of AP1, AP2, AP3 and AP4. The changes resulted in the minimum threshold for investments in fixed income securities with low credit and liquidity risk being reduced from 30% to 20%. Parliament also removed the limit on investments in unlisted assets, replacing it with a new 40% ceiling for investments in illiquid assets. The guidelines also require the AP funds to manage their assets with integrity by making responsible investments and acting responsibly as an owner.

The changes were broadly in line with those sent out for consultation in 2017 and were thus expected. The board of directors worked intensively during the year to prepare the Fund for the implementation of the new guidelines. The board also completed a comprehensive review of the Fund's risk management framework. This focused primarily on the risk management plan but also on other steering documents. The process of adjustment to the new guidelines and the risk management review affected many parts of the organisation, which led to parts of this work being conducted on an integrated basis across relevant functions.

At its December meeting the board of directors approved a new risk management plan with a new structure governing the Fund's overall approach to risk management, risk organisation, risk profile, risk

appetite, risk categories, risk management, chain of command, limit infringements, incident management and reporting. The board of directors also approved new goals and asset management principles, general investment guidelines and an internal governance and control policy. In addition, the board of directors issued interpretations of restrictions in the National Pension Insurance Funds Act. Earlier in the autumn, the board decided to revise the long-term static portfolio (LSP), which is the Fund's internal reference portfolio. The board also considered whether to re-evaluate the Fund's target of a 4% real return per annum over time in the light of the changes in the government's investment rules and changes in projected returns. Ultimately, the board decided to leave the return target unchanged pending a new ALM study to be carried out in 2019.

The new guidelines requiring the AP funds to manage their assets responsibly require the funds to work together. The funds' Council on Ethics initiated a process to develop shared responsible investment guidelines for all the funds. The results of this process were reported regularly to the AP3 board of directors, which in turn relayed its views back to the council. At its December meeting the board approved extended collaboration between the AP funds in several areas: shared core values for asset management operations; shared guidelines on the reporting of goal fulfilment; and shared guidelines specifying those asset categories that are excluded from the funds' investment universe.

Continued focus on regulatory compliance

The AP funds are government bodies whose exclusive task is to manage state

pension capital. As a result, they are usually exempt from the rules governing the financial institutions that operate in Sweden's financial markets. Often, however, these rules provide a useful framework for what constitutes best practice. Recent years have seen a big increase in the amount of regulation applicable to financial market actors. These have impacted the whole market and hence also, both directly and indirectly, AP3. Consequently, the board of directors has devoted more attention to regulatory issues since 2017 and they remain a priority area.

Risk

The understanding and control of different types of risk are vital to AP3 in its investment operations. During the year the Fund comprehensively revised its risk management plan. This process and the changes involved were discussed at four board meetings and at all audit committee meetings. The changes included updates to the risk management plan to reflect the new guidelines governing the AP funds. At its strategy meeting, the board of directors discussed the Fund's risk preferences, the return target, the relative merits of different portfolio asset classes and the Fund's sustainability goals. The board also considered specific risks relating to the Swedish real estate market.

AP3 conducts a review of total risk every year, identifying and measuring risk in all parts of the organisation with a view to taking action where appropriate. The analysis is based on self-assessments conducted internally through the organisation. The Fund also annually evaluates the risks attached to its main counterparties. Risk assessments are discussed by the audit committee and the board of directors.

Board meetings in 2018

	Board meeting attendance (no. held)	Remuneration committee	Audit committee
Pär Nuder, Chairman	6 (6)	Chair (2 out of 2)	
Björn Börjesson, Deputy Chairman	5 (6)		Chair (4 out of 4)
Malin Björkmo	6 (6)		Member (4 out of 4)
Peter Englund	6 (6)		
Lars Ernsäter (to May 2018)	2 (2)	Member to 31 May (1 out of 1)	
Peter Hellberg (to May 2018)	2 (2)	Member to 31 May (1 out of 1)	
Torbjörn Hållö (from June 2018)	4 (4)	Member from 1 June (1 out of 1)	
Kerstin Lindberg Göransson	5 (6)		Member (4 out of 4)
Christina Lindenius	6 (6)		
Mikael Sandström (from June 2018)	3 (4)		
Elisabeth Unell	5 (6)	Member from 1 June (1 out of 1)	

Corporate governance

In corporate governance, the board of directors has oversight of overall direction and policy. The board is also consulted on important corporate governance matters. In some instances, these discussions are of a more informative nature, while in others they require decisions. The board of directors annually approves the corporate governance policy as well as any decisions on portfolio exclusions recommended by the Council on Ethics. In 2018 the board of directors approved the exclusion of three Canadian companies with operations in the cannabis industry.

On a number of occasions during the year, the board discussed the forthcoming changes to the National Pension Insurance Funds Act. Together, the AP funds agreed a set of shared core values for their asset management operations; shared reporting guidelines for responsible investment; and shared guidelines on assets that the funds should avoid. In each case, the AP3 board of directors approved and adopted these guidelines.

The board is regularly briefed on corporate governance matters. Documents

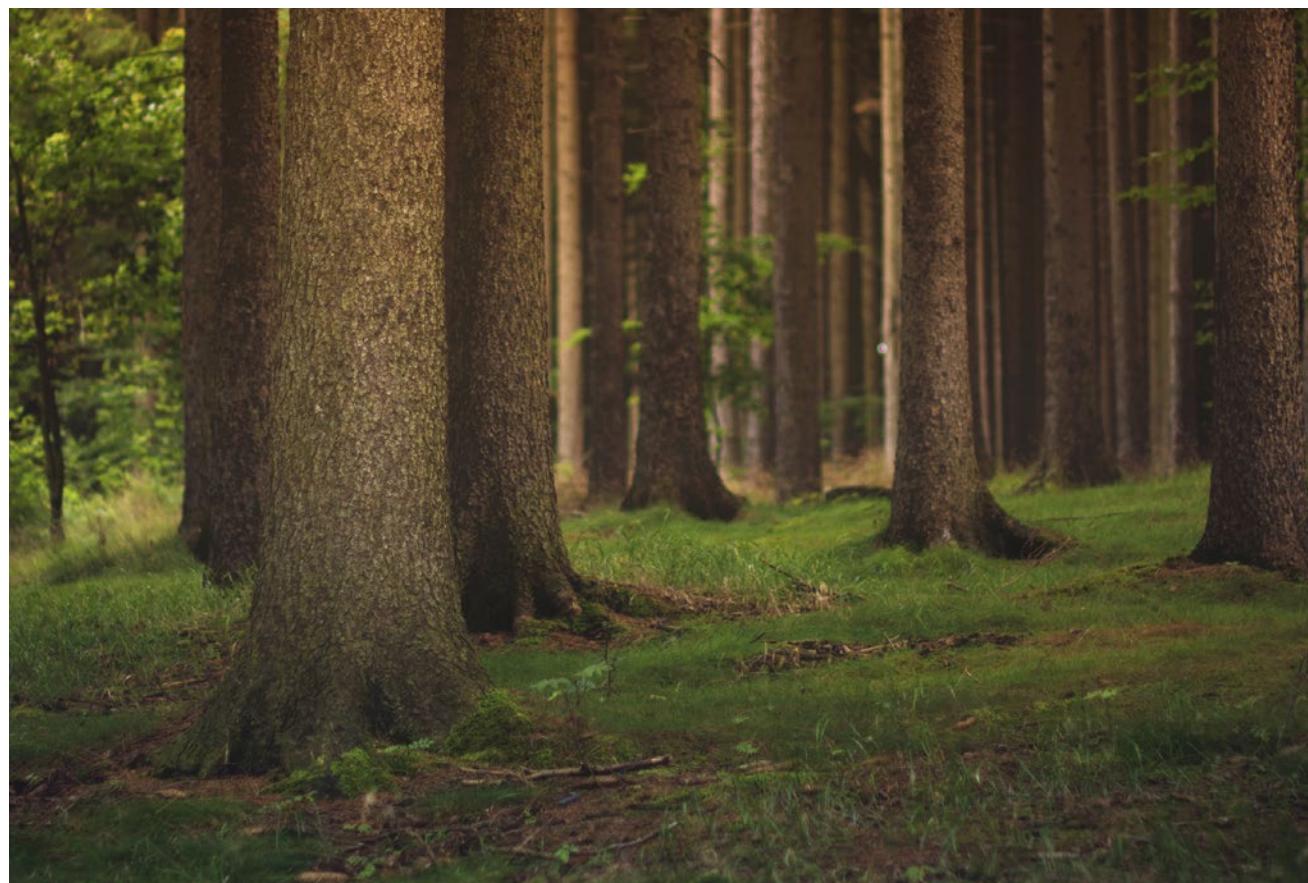
presented for board purview include the annual corporate stewardship report. The 2018 report highlighted continued debate on corporate board structure during the year. AP3 has for many years been calling for greater equality of opportunity in relation to corporate board recruitment and, while noticeable improvements have been seen in this area, progress is still taking longer than we would like.

At international level, the Fund highlighted a number of priority issues. In Sweden, executive remuneration remained the primary focus. AP3 voted against AGM resolutions proposing the adoption of cash- and share-based variable remuneration programmes in cases where such programmes lacked clear and measurable performance criteria. During the year the fund also engaged with companies to advocate for the separation of the positions of CEO and chairman of the board and against excessively large rights issues.

Investment costs

Cost-effectiveness in asset management is always high on the agenda at both management and board level. Costs are also ad-

dressed in the government's review of the AP funds and in the official response to this review issued by the Parliamentary Committee on Finance. The board of directors evaluates cost-efficiency on a quarterly and annual basis and also approves and monitors the budget. The board of directors also receives a yearly report on the peer group study performed by CEM Benchmarking, in which AP3 has participated for a number of years. The CEM study compares AP3 with 18 global funds of equivalent size and investment profile. The funds are based in Finland, the Netherlands, the US, Canada, Australia and New Zealand and each has an average of SEK 363 billion of funds under management. The most recent CEM study, from 2017, showed AP3's expenses to be 36% lower than the benchmark group average. This was primarily because AP3 has a higher ratio of internally managed assets and hence lower external management costs than the benchmark group.



Internal and external control

Under the National Pension Insurance Funds Act, the board of directors is responsible for AP3's administration, organisation and overall activities. These responsibilities include ensuring effective internal control. AP3 has a governance framework that defines its fund management systems, risk management and internal control structure. The board of directors issues general policies and guidelines that are operationalised via directives from the CEO. All steering documents are revised regularly. One key document is the internal control and governance policy, which is approved annually by the board of directors. The policy sets the framework for AP3's internal governance and control. The division of responsibilities is designed to support the internal control structure to ensure internal control remains fully independent from the rest of the organisation. This binary structure is reflected in access authorisation to AP3's systems.

Control functions

The Fund's two control departments are Risk Control and Return Analysis, which focuses on financial risk; and Compliance, which primarily addresses regulatory compliance and operating risk. Risk Control and Return Analysis is in charge of measuring and analysing risk arising from asset management operations and for ensuring that the Fund's risk framework and investment limits are observed. Limits apply at various levels to ensure that AP3 operates within statutory guidelines and the rules set by the board of directors and the CEO. The chief risk officer (CRO) in charge of the risk control function.

Compliance is in charge of making sure that AP3 operates within applicable external

guidelines and in conformity with internal policies, guidelines and directives. This includes ensuring that the organisation is aware of relevant rules and applying them throughout the organisation, an area of responsibility that extends to the monitoring of identified action plans relating to AP3's annual review of operational risk. During the year the Fund created the position of chief operating officer (COO), whose function includes ensuring appropriate risk management in the first line of defence.

Reporting

Analysis and control rely on daily reporting of risk and financial results for the entire portfolio. Management reports monthly to the board of directors (and more frequently if required). Any breach of investment limits is reported according to a set framework in which the audit committee informs the board of directors. Significant incidents are reported to the board of directors immediately. The compliance officer and CRO both report directly to the board of directors if necessary.

Internal audit

Internal audit is tasked with carrying out controls to ensure that AP3's internal governance and control environment are fit for purpose and that the organisation is aligned with the decisions taken by the board of directors. Internal audit reports are processed by the audit committee and reported to the board of directors. In 2018 Ernst & Young carried out an audit of the Fund's outgoing payment procedures. The review concluded that the Fund has solid procedures in place. Areas identified for improvement were subsequently addressed.

External auditors

AP3's auditors are appointed by the government, which selected PwC as auditor after a public procurement process. The auditors are Helena Kaiser de Carolis and Peter Nilsson. Peter Nilsson is also responsible for coordinating the audit process between the AP funds. The auditors' work includes reviewing AP3's operating activities, including internal control, administration, annual financial statements and accounting records. Based on their audit, the auditors express an opinion on the accounting records and the administration.

Their mandate also includes verifying that AP3 follows the accounting and valuation policies agreed jointly by the AP funds and that the accounting records give a true and fair view of AP3's operating activities. The auditors report orally to the board of directors a minimum of once a year and submit written reports on their audit of the annual financial statements and management audit. The auditors normally meet the audit committee twice a year. They are responsible for reviewing compliance with government guidelines on employment terms and conditions for senior managers at the AP funds. The auditors report verbally to the Ministry of Finance once a year.

Board of directors



Pär Nuder

Chairman

Elected to the AP3 board in 2011

Other current assignments: Industrial consultant. Director at AMF Pension, Hemsö, Skistar and Öbergs Färghus. Director at Beijerinvest, Fabege, IP-Only and Fårö Bergman Centre Foundation.

Previously: Minister of Finance, Minister for Policy Coordination, Member of Parliament, Under-secretary of State in the Prime Minister's Office, Chairman of Vasallen and Director at Vin & Sprit.

LLB. Year of birth 1963.



Björn Börjesson

Deputy Chairman

Elected to the AP3 board in 2011

Other current assignments: Deputy Chairman of Swedfund International, Director at Åke Wiberg Foundation, Euroclear Sweden, Ahlströmska Stiftelsen and SVCA's Oversight Committee, and Credit Director at Cordet Capital Partners.

Previously: Deputy Managing Director Handelsbanken.

LLB. Year of birth 1951.



Malin Björkmo

Elected to the AP3 board in 2016

Other current assignments: Adviser in corporate governance and financial regulatory affairs. Director at Handelsbanken Fonder, Trygg-Stiftelsen and Itello. Deputy chairman of Nuclear Waste Fund and Insuresec Disciplinary Board.

Previously: Area Director of Swedish Financial Supervisory Authority, Head of State Ownership Department at Government Offices, CEO of Storebrand Liv Sweden, Head of Asset Management at Skandia Liv.

MSc, Stockholm School of Economics. Year of birth 1962.



Peter Englund

Elected to the AP3 board in 2013

Other current assignments: Professor emeritus Stockholm School of Economics and Uppsala University. Director at Wenner-Gren Stiftelserna, Swedish Financial Supervisory Authority and member of Swedish Fiscal Policy Council.

Previously: Professor at Uppsala University and University of Amsterdam.

PhD, Stockholm School of Economics. Year of birth 1950.



Torbjörn Hållö

Elected to the AP3 board in 2018

Other current assignments: Economist at Swedish Trade Union Confederation.

Previously: Positions in Budget Group of Social Democratic Party in Parliament, Stockholm City Hall and Ministry of Enterprise and Innovation.

BSc, Gothenburg School of Business, Economics and Law. BA Lund University. Year of birth 1976.



Kerstin Lindberg Göransson

Elected to the AP3 board in 2016

Other current assignments: CEO Akademiska Hus. Director at Hemnet Group AB.

Previously: Director at Arlanda Airport, Treasury and Finance Director and Deputy Managing Director of Scandic group, Director at Jernhusen, Chairman of K2 National Knowledge Centre for Public Transport, Chairman of Svensk Bilprovning, Director at Grand Hotel, Swegon, OEM, Strömma Sjöfart och Turism AB. BSc. Year of birth 1956.



Christina Lindenius

Elected to the AP3 board in 2017

Other current assignments: CEO of Swedish insurance industry and employers' association FAO, and head of Svensk Försäkring i Samverkan (SFIS). Chairman of Min Pension i Sverige, Swedish Motor Insurers (TFF) and Svensk Försäkring Administration. Director at ICC's Swedish National Committee and Föräkringsbranschens Pensionskassa (FPK).

Previously: Director-General of Premium Pension Authority, Deputy Director at the Ministry of Finance and Head of Department at Swedish Central Bank.

BSc Uppsala University, studies at Masters of International Economics Programme, SAIS, John Hopkins University, Washington DC. Year of birth 1964.



Mikael Sandström

Elected to the AP3 board in 2018

Other current assignments: Advisor. Director at Swedfund International AB.

Previously: Secretary of State in Prime Minister's Office.

BSc and PhD, Stockholm School of Economics. Year of birth 1967.



Elisabeth Unell

Elected to the AP3 board in 2012

Other current assignments: Opposition leader on Västerås City Council. Director at SKL and Västerås Marknad och Näringsliv.

Previously: Chairman of Västerås Municipal Executive Committee and Aroseken.

MPhil, BSc. Year of birth 1962.

Executive management



Kerstin Hessius

CEO

Joined AP3 in September 2004

Other current assignments: Director at Vasakronan, Hemsö, Trenum, Handelsbanken, Svedab and Öresundskonsortiet.

Previously: CEO of Stockholmsbörsen, Deputy Governor of the Swedish Central Bank, CEO of Östgöta Enskilda Bank Asset Management, Nordic Head of Fixed Income Alfred Berg, CEO of Alfred Berg Transferator.

BSc. Year of birth 1958.



Kerim Kaskal

Acting Chief Investment Officer (CIO)

Joined AP3 in August 2018

Previously: Ambrosia Asset Management, Nektar Asset Management, AP3, Stora Finance Bryssel, SEB and JP Bank.

Senior high school graduate. Year of birth 1965.



Eva Boric

Chief Financial Officer and Chief Risk Officer (CFO and CRO)

Joined AP3 in August 2018

Previously: Senior risk management positions at SEB. Development specialist Nasdaq OMX.

BSc. Year of birth 1976.



Mattias Bylund

Chief Operating Officer (COO)

Joined AP3 in August 2002

Andra nuvarande uppdrag: Director at Ellevio.

Previously: AP3 Head of External Management and Quantitative Analyst.

BSc. Year of birth 1977.



Lil Larås Lindgren

Head of Communications

Joined AP3 in February 2014

Previously: Senior communications positions at Attendo, Hemfrid, Swedish Travel and Tourism Council, Ericsson, Tetra Pak and Philipson Bil and communications consulting.

Degrees from RMI Berghs and Uppsala University. Year of birth 1962.



In memoriam Mårten Lindeborg

Our much loved and valued colleague Mårten Lindeborg, CIO and Deputy CEO, passed away in August after a short illness.



AP3

Administration report

Net result in 2018

Net profit was SEK 2,202 million (28,239), representing a return of 0.7% (8.9) before expenses and 0.6% (8.8) after expenses. Fund capital stood at SEK 340,668 million (345,239) at year-end, down by SEK 4,571 million from the prior year.

During the year AP3 had a net outflow of SEK 6,773 million (7,375) to the pension system. Since 2009 the Fund has paid SEK 50,704 million to the Swedish Pensions Agency to help cover the deficit between pension contributions and disbursements and the agency's administrative costs.

Income

Income after commission expenses was SEK 2,404 million (28,434) and consisted primarily of realised and unrealised changes in the value of financial assets, which are measured at fair value on the reporting date. Other income consisted of net interest income, dividends received and net currency income. Changes in foreign exchange rates had a positive impact of

SEK 4,860 million (-4,405) on the net result. Net currency income consists of changes in the exchange rates of different currencies versus the krona.

Commission expenses totalled SEK 117 million (152) and are recognised as a deduction from income because they are directly attributable to the cost of acquiring income. These costs comprise management fees for external mandates, fund management fees, custodial fees and costs of holding collateral during clearing. Commission expenses totalled 0.03% (0.05) of average fund capital.

rate in 2018 was 2.0% (1.7). AP3 has a long-term target of an average annual real return of 4%. In the last 10 years the Fund has achieved an average annual real return of 7.4% (5.1). The average annual nominal return for this period stands at 8.5% (6.1), which is higher than the 2.7% (3.0) increase in the income index, which is the benchmark used to keep pension entitlements in line with inflation. Hence, AP3 has made a positive contribution to the pension system and has exceeded its long-term target for real return.

Operating expenses

Operating expenses were SEK 202 million (195), of which staff costs accounted for SEK 129 million (123). Operating expenses were 0.06% (0.06) of average fund capital.

Return in 2018

The AP3 portfolio delivered a total return of 0.7% (8.9) before expenses and 0.6% (8.8) after expenses. Real return (adjusted for inflation) was -1.4% (6.9). The inflation

Change in fund capital

SEK m	2018	2017	2016	2015	2014
Fund capital at 1 Jan	345,239	324,375	303,031	288,332	258,475
Pension contributions	69,552	66,850	64,174	61,373	58,880
Pension disbursements	-76,109	-73,999	-70,595	-66,142	-63,777
Administration fee to the Swedish Pensions Agency	-216	-226	-216	-176	-224
Net result for the year	2,202	28,239	27,981	19,643	34,977
Total fund capital	340,668	345,239	324,375	303,031	288,332

Expenses in last five years

SEK m	2018	2017	2016	2015	2014
Commission expenses, SEK m	117	152	180	170	162
Operating expenses, SEK m	202	195	186	192	178
Asset management expenses, SEK m	320	347	366	362	340
Commission cost ratio, %	0.03	0.05	0.06	0.06	0.06
Operating cost ratio, %	0.06	0.06	0.06	0.06	0.07
Asset management cost ratio, %	0.09	0.10	0.12	0.12	0.12

Exposure and risk management

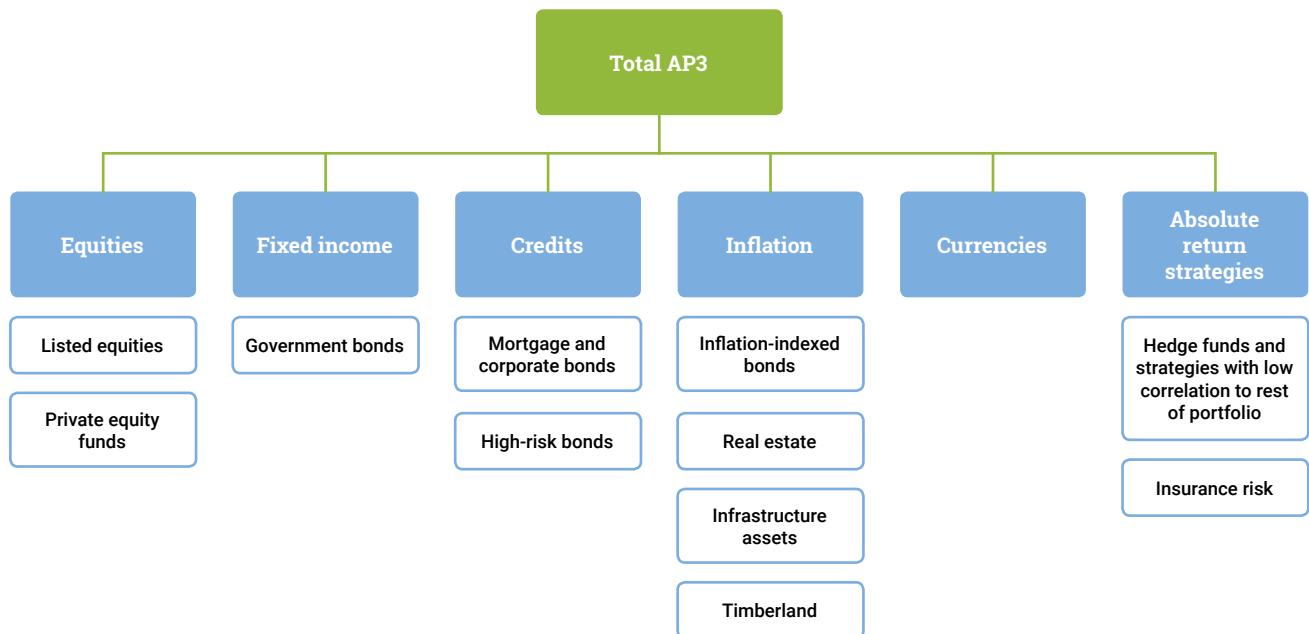
In the interests of effective asset management and risk control, AP3 divides its investments into six risk categories: equities; fixed income; credits; inflation; currencies; and absolute return strategies. The exposures to each risk category lay the foundation for risk control and asset management.

This approach provides an effective structure for analysing and projecting future returns and risk for different assets with similar risk profiles. These projections, combined with macroeconomic analysis, valuations and assessments of investors' risk appetite, form the basis for asset allocation. Exposure is defined as underlying value that is exposed to changes in value arising due to market movements. AP3 uses derivatives to manage risk and bring greater efficiency to asset management. The use of derivatives allows exposure to be greater or less than total fund capi-

tal. Exposure at year-end totalled 103.7% (100.8%) of fund capital. Total portfolio risk is expressed using the Value at Risk (VaR)¹ metric. A VaR with a 95% confidence level connotes a 95% certainty that the daily negative change in portfolio value will not exceed the measured amount. At year-end, VaR for the total portfolio stood at SEK 2,747 million (1,217). The increase in estimated risk was due to a sharp increase in market volatility between 2017 and 2018. See Note 20 for further details. Equities were the main source of investment exposure and also the primary contributor

to portfolio risk. The currencies and fixed income risk categories showed negative covariance with equity risk, which restricted the overall level of portfolio risk. The diversification strategy that AP3 deploys between asset classes and geographic markets also helped to reduce total portfolio risk during the year.

PORTFOLIO ALLOCATIONS BASED ON SIX RISK CATEGORIES



1) See Glossary, p. 77

Return per risk category

Strong returns in the inflation and currencies risk classes lifted the AP3 portfolio to a positive return of 0.7% in 2018, in spite of equities – the largest risk class – recording a negative return of 9.8% due to global equity market weakness.

Equities

Equities consist of investments in shares that are both listed and unlisted. Equity exposure is the largest source of risk for the AP3 portfolio and varied from a minimum of 45% to a maximum of 52% of fund capital. Equities delivered a return of -9.8% (17.0) and contributed -4.3 (7.8) percentage points to total return.

Returns in 2018 were much more volatile than during 2017. After a weak first quarter, equity markets – particularly in the US and Sweden – rebounded in the second and third quarters. A sharp correction during the fourth quarter resulted in all large equity markets recording a negative return for the full year. The MSCI All Country World Index, for example, fell 9% in dollar terms. The US equity market weathered the storm best, albeit recording a 4% decline for the year. In local currency terms, European equity markets fell by 10%, Sweden dropped by 7% and Asia excluding Japan shed 10%. The largest losses were seen in Japan, where the stock market fell by 15%, in local currency terms and in emerging markets, which also retreated 15% (in US dollar terms). Just under one third of AP3's equity portfolio is invested in North American equities. Swedish equities account for a further quarter of the portfolio.

The market for unlisted equity invested in private equity funds continued to perform strongly. The portfolio's share of private equity funds totalled 3.8% at year-end. During the year, investment commitments were made to seven new funds. Return on private equity funds totalled 21.2% (6.1) in Swedish kronor terms, of which currency effects

accounted for 9.2 percentage points. These exposures contributed 0.5 percentage points to total return.

Fixed income

The fixed income risk category comprises investments in government bonds, government guaranteed bonds and supranational bonds. These holdings delivered a return of -1.1% (0.6). Fixed income securities lose value when yields rise, and this explains the negative return for 2018. Bond yields rose most in the US, which affected overall return significantly because AP3 has substantial investments in US government bonds. The fixed income risk category contributed -0.2 percentage points (0.1) to overall return.

AP3's exposure to fixed income securities increased marginally during the year and was 21.9% (18.8) at year-end. These holdings were primarily of US government bonds. Some 26% (31) of fixed income investments were in bonds assigned the top AAA credit rating by Standard & Poor's. Ninety-six percent (88) were in bonds with AAA or AA ratings.

The National Pension Insurance Funds Act requires 30% of fund capital to be invested in low-risk bonds. These investments fall within the fixed income, credits and inflation risk categories. AP3's holdings in this category averaged 32.3% (32.2) of fund capital in 2018.

Credits

Credits consist primarily of investment grade¹ Swedish mortgage and corporate bonds. During the year the Fund invested in bonds with a lower rating, known as high-yield bonds. Credits generated a return of 0.7% (-3.1), equating to a contribution of 0.0 percentage points (-0.2) to total return.

AP3 has historically maintained a low credit exposure as returns on this risk category have been low in relation to risk. However, rising underlying yields and a gradual widening of market spreads has created new opportunities and resulted in a higher allocation. Exposure to credits was 5.1% (4.1) at year-end.

Return, Equities

-9.8 %

Return, Inflation

14.8 %

Inflation

The inflation risk category covers investments whose value is projected to rise in line with inflation over the long term and includes investments inflation-indexed bonds, real estate, infrastructure and timberland. These assets generated a return of 14.8% (10.7), equivalent to a contribution of 2.9 percentage points (2.3) to overall return.

Inflation-indexed bonds contributed -0.1 percentage points to total return and this portfolio had a market value of SEK 24 billion at year-end.

The largest investments in this risk category are in real estate, through ownership stakes in companies such as Vasakronan, Hemsö, Trophi, Regio and Trenum. Real estate investments recorded a return of 22.4% (20.5). Vasakronan, which is owned jointly by AP1, AP2, AP3 and AP4, noted continued strong demand for office space, especially in Stockholm, leading to higher rental income. Hemsö, which focuses on community buildings, also performed strongly and continued to invest in projects in Sweden and in acquisitions in Finland and Germany. Trophi, which is wholly owned by AP3 and specialises in supermarket property, made several small acquisitions in Finland and had real estate holdings worth SEK 13 billion at year-end. Regio, in which AP3 has an 80% equity stake, also grew by acquisition and at year-end had a real estate portfolio worth SEK 8 billion. AP3 has major investments in timberland and infrastructure but made no new investments in these areas during the year. Timberland and infrastructure generated returns of 11.3% (-5.8) and 12.2% (8.7) respectively in Swedish kronor terms.

1) See Glossary, p. 77

Currencies

The currencies risk category comprises AP3's exposure to changes in foreign exchange rates against the krona. These exposures relate to investments in foreign assets not hedged in kronor and in direct currency exposure. Currency positions are taken to increase returns and reduce risk in the total portfolio.

Exposure to the US dollar was increased sharply in the early part of the year to make the portfolio more robust. The continued depreciation of the krona during the year, especially against the dollar, led the Fund to decrease currency exposure in advance of the Swedish Central Bank raising interest rates. The krona fell by 8 percent against the dollar and also dropped sharply against the yen and Swiss franc, falling by 11% and 7% respectively. The krona's weakness was the driver behind a positive return in currencies. A weaker krona makes foreign investments more valuable in Swedish kronor terms.

Currencies contributed 2.9 percentage points (-1.0) to total return. Currency risk usually shows a negative covariance with equity risk and thus helps to diversify the portfolio. At year-end, currency exposure stood at 17.7% (15.0).

Absolute return strategies

The absolute return strategies risk category covers management mandates with an absolute return target as well as investments in insurance-related instruments and risk premium strategies. Capital allocations to this risk category are limited; instead the board of directors sets a risk mandate within which the management team operates.

Insurance-related investments may be subject to underlying risks in the form of climate change, natural disasters and weather and disease epidemics. In addition to broadening and diversifying the portfolio, these investments help to increase the

insurance coverage of people in less privileged parts of the world. Insurance-related investments totalled SEK 5 billion (4) SEK billion at year-end and generated a return of 1.0% (1.6). Absolute return strategies generated negative income of SEK 2,276 million (positive: 425), equivalent to a contribution of -0.7 percentage points (0.1) to the total portfolio.



Risk categories

	Equities		Fixed income		Credits		Inflation		Currencies ¹		Absolute return strategies ²		Total AP3	
	31 dec 2018	31 dec 2017	31 dec 2018	31 dec 2017	31 dec 2018	31 dec 2017	31 dec 2018	31 dec 2017	31 dec 2018	31 dec 2017	31 dec 2018	31 dec 2017	31 dec 2018	31 dec 2017
Risk per category														
Value at Risk, SEK m	2,725	1,388	208	74	9	23	389	157	525	563	121	259	2,747	1,217
Value at Risk, %	0.80	0.40	0.06	0.02	0.00	0.01	0.11	0.05	0.15	0.16	0.04	0.08	0.82	0.34
Contribution to total risk, percentage points	93.9	106.0	-4.4	-1.1	0.1	-0.1	10.6	6.2	-3.7	-14.0	3.5	2.9	100	100
Realised volatility 12 m, %	11.7	6.7	6.1	4.6	1.5	1.9	2.4	1.3	-	-	-	-	5.4	3.5
Exposure per risk category														
Exposure, SEK m	157,192	172,401	74,646	65,066	17,320	14,221	90,179	77,615	60,451	51,863	12,356	13,591	353,171	348,021
Exposure, %	46.1	49.9	21.9	18.8	5.1	4.1	26.5	22.5	17.7	15.0	4.1	3.9	103.7	100.8
Return per risk category														
Return, %	-9.8	17.0	-1.1	-0.6	0.7	-3.1	14.8	10.7	-	-	-	-	0.7	8.9
Contribution to total return, percentage points	-4.3	7.8	-0.2	-0.1	0.0	-0.2	2.9	2.3	2.9	-1.0	-0.7	0.1	0.7	8.9
Share of total return, %	-591.8	87.5	-28.8	-1.4	5.5	-2.4	402.7	26.1	401.4	-11.5	-89.0	1.6	100	100

1) Currency exposure shows the ratio of assets held in foreign currency and cannot be added to total exposure.

2) Absolute return strategies consist of risk mandates to which no capital is allocated and return can therefore not be fairly measured.

Costs and expenditure

Cost-effective management helps to ensure attractive returns after expenses and to maintain public confidence in AP3.

AP3 aspires to be a cost-effective fund manager and uses several mechanisms to help achieve this goal:

- 1 Budget oversight
- 2 Analysis of changes in absolute figures
- 3 Costs in relation to fund capital
- 4 Benchmarking against similar funds internationally

Having an annual cost budget gives oversight and control. Analysing any deviations between budget and actual outcome yields valuable information that is used to guide operational decision-making. Changes from year to year are a further source of information for executive management and the board of directors on the Fund's cost base. Naturally, costs tend to rise over the years due to inflation and to growth of the Fund's capital. This makes it important to compare costs to the size of assets under management. The figure calculated by drawing this comparison is known as the asset management cost ratio. Cost comparisons also facilitate benchmarking against other funds.

As part of efforts to ensure that AP3's asset management is cost-effective by international standards, AP3 has since 2005 conducted an annual survey performed by

Canadian consultancy CEM Benchmarking. A large number of funds from all over the world participate in the survey, which benchmarks AP3 against funds of a similar size and profile, as well as against European funds. The study also compares returns, portfolio structure, management style and other parameters. The study shows that AP3 has succeeded in generating higher returns at a significantly lower cost than its peers. The most recent CEM study, from 2017, showed AP3's expenses to be 36% lower than the benchmark group average in the prior five years.

Different types of cost

AP3's costs arise in a variety of areas and are therefore reported differently. Generally speaking, costs fall into one of three categories:

Operating costs are those that arise from operating activities. They relate mainly to AP3's employees and the Fund's size. These costs are included in the total administrative costs of the income pension system and are recognised as a reduction of pension provisions.

Commission expenses arise from external management and are directly related to the size of externally managed funds and the management style employed. They include custodian bank fees and costs of managing collateral.

Transaction costs arise when buying and selling assets.



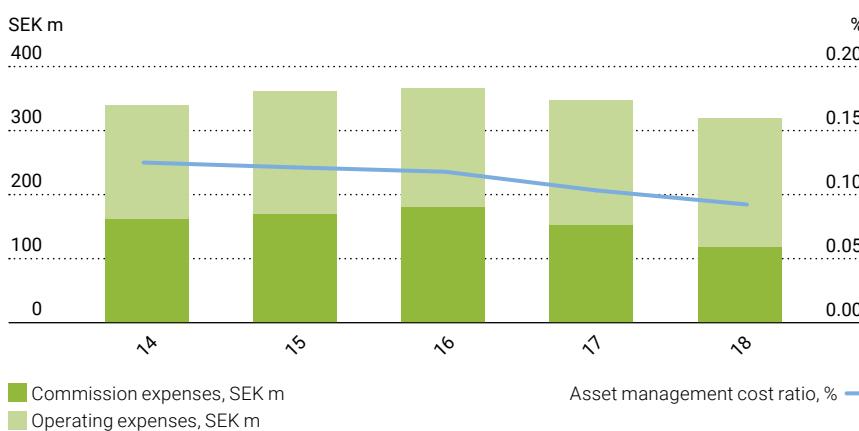
In addition to these categories there are also performance-based fees for external management mandates. These fees, however, are better seen as profit sharing. All costs are ultimately related to the size of fund capital, the specific investment strategy, the ratio of external management, asset turnover and currency swings.

External management costs and transaction costs are not included in the administrative costs of the income pension system and hence do not have any direct effect on pension provisions.

Operating expenses

Operating expenses are recognised separately in the income statement and comprise staff costs and other administrative costs. These costs totalled SEK 202 million (195). Staff costs of 129 million (123) accounted for most of these expenses. Staff costs include salaries, social security costs, pension contributions and other staff-related expenses such as training and staff recruitment. The average number of employees 2018 was 57 people (56). Other administrative expenses consist of costs for market data, IT and office space. Operating costs in 2018 were 0.06% (0.06) of fund capital. See Notes 6 and 7 for further information on operating expenses.

Costs and asset management cost ratio



Cost items recognised in income

Commission expenses totalled SEK 117 million (152) and relate to costs directly attributable to the management of fund capital. They are recognised separately in income. In 2018 they stood at 0.03% (0.05) of fund capital. AP3 uses external management when it is more cost-effective than internal management or when, for various reasons, internal management is difficult. The AP funds have previously been required by law to invest at least 10% of their assets in external management. However, as of 1 January 2019 this requirement has been abolished. External management fees are charged as a percentage of the portfolio's value, meaning that they are directly related to the size of the underlying capital. At year-end, 26% (25) of fund capital was externally managed. The 23% drop in external management costs from the prior year reflects a decreased reliance on more expensive specialist management in favour of more traditional active or enhanced management. Commission expenses also include custody account bank fees and charges for managing collateral. Together, these costs, which relate to the costs of managing the Fund's securities, derivatives and associated collateral, were SEK 14 million (13). Some management mandates for unlisted

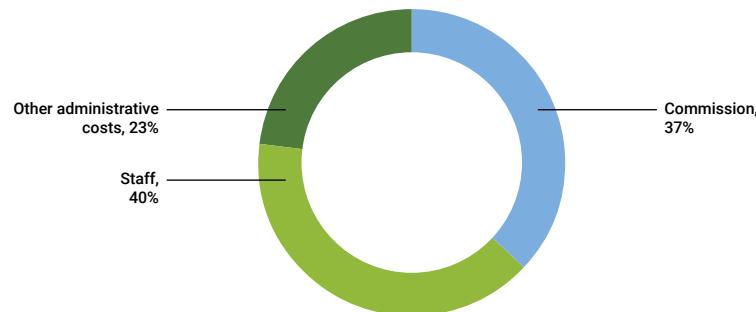
assets include an agreement that all management fees must be settled before profit sharing. In such cases, these management fees are recognised as cost.

Performance-based fees are a form of profit sharing payable to external managers when returns exceed agreed targets. These fees are expensed directly against the returns from the investments and are recognised as net income from financial transactions in the income statement. Performance-based fees totalled SEK 144 million (118). For further information on commission expenses and performance-based fees, see Notes 4 and 5.

Transaction costs relate to purchases and sales of securities and are the difference between the buying and selling rates. They are recognised at cost or as a deduction from sale proceeds. Brokerage fees also arise in relation to equity trading. They totalled SEK 54 million (59) in 2018.

Tax costs that the Fund is entitled to reclaim under double taxation treaties are recognised in the balance sheet as a claim and hence have no effect on income.

Costs



Risk management

AP3's asset management operations expose it to different types of risk. The Fund's core activity is managing financial risk to deliver investment returns and achieve stated targets.

Risk is defined as uncertainty over future outcomes arising from factors that affect the Fund's operating activities. Risk management is the process by which risks are identified and evaluated and their positive or negative consequences are managed. In other words, it is the process by which the Fund manages its risk and return profile.

Because risk-taking can generate positive and negative outcomes, risks taken must be conscious, calculated and within applicable frameworks. Ultimately, AP3 is exposed to a risk that the fundamental parameters of the pension system will shift, for example due to demographic changes. AP3 analyses these risks using asset liability management (ALM), and the board of directors uses ALM data to set long-term operating targets.

Operationally, the Fund takes positions in financial instruments in order to earn a return. This means that fund capital is always exposed to financial risk. Diversifying fund capital into different financial assets, geographic areas and risk premiums – and varying investment time frames – enables risks to be limited.

The board of directors sets the overall level of risk by approving a risk framework within which asset managers must operate. The risk management plan is a steering document that describes the main operating risks, the board's risk appetite and how risk should be monitored.

General risk analysis

AP3 bases effective risk management on an annual analysis of overall portfolio risk.

The analysis is part of the framework for identifying and measuring risk in all areas and for making it possible to act proactively to adjust risk exposure as and when appropriate. The Risk Control and Compliance functions are responsible for implementing the risk analysis. The analysis itself is carried out on a self-evaluation basis and helps to promote high risk awareness and a prudent approach to risk throughout the organisation. The Fund also uses the risk analysis when drawing up operating and resource plans for the coming year. The risk analysis report and action plans are submitted to the audit committee and board of directors once a year.

Risk management

The CEO and CIO are responsible for identifying, analysing and prioritising risk, projecting returns and risk, and allocating risk mandates between different asset categories and strategies based on the Fund's return targets. Risk management is structured as follows:

Board of directors

Holds ultimate responsibility for AP3's governance and control. Ensures that the Fund's risk management system is effective and fit for purpose. Sets the Fund's risk level and risk appetite.

Audit committee

Has an advisory and oversight role on the board of directors' behalf in financial reporting, accounting, internal control, risk management and audit. The audit committee reports directly to the board.

CEO

Responsible for AP3's day-to-day management and compliance with the guidelines set by the board. The CEO is tasked with ensuring good governance of the Fund's asset management, risk management, risk control and reporting.

Chief investment officer (CIO)

Manages overall risk levels in the AP3 portfolio and delegates day-to-day asset management within the frameworks set by the board and CEO. Each head of department and portfolio manager is responsible for managing the risk attached to his or her mandate in order to achieve targets within set limits.

Chief operating officer (COO)

A new position created during the year to ensure an effective first line of defence and to oversee the updating of asset management processes and the adoption of digital practices.

Chief risk officer (CRO)

Responsible for compliance and reporting of the risk framework to management and the board of directors. The CRO makes sure that investment decisions are taken in compliance with the risk framework set by the board of directors.

Compliance

Responsible for ensuring that the Fund operates within the law and in conformity with internal guidelines. Compliance is also in charge of identifying, documenting and analysing compliance risks that can arise in the Fund's operations. It reports to the CEO and board of directors.

Risk Management Committee (RMC)

A special committee consisting of the CEO, CRO and Compliance Officer that addresses risk-related issues. The CEO may appoint more committee members from the Fund's employees. The RMC handles issues relating to general risk management and risk control on a preparatory basis for the board. The CRO chairs the RMC.

Three lines of defence

Day-to-day risk management and control are decentralised and follow the three lines of defence principle, which differentiates between functions that have primary responsibility for risk and regulatory compliance (first line), functions responsible for monitoring and control (second line) and functions tasked with independent oversight (third line). Responsibility for the first line rests with the investment organisation, which includes all asset management department teams as well as supporting business functions. Hence, responsibility for risk management is borne where the risk arises. Controls are continuous and along the entire transaction flow. Each employee and head of department manages risk within his or own area of responsibility. The new role of COO was created during the year to ensure effective risk management in the first line of defence.

The second line of defence comprises the Risk Control function and the Compliance function. The Risk Control function is there to ensure that the risk framework is complied with. The risk control process makes sure that the organisation, both in part and in whole, stays within stipulated limits and complies with applicable restrictions and instructions while managing identified risks satisfactorily. The Compliance function makes sure that legal frameworks, government regulations and guidelines, generally accepted market practices and internal policies and guidelines are followed.

The two functions are both independent and are organisationally separate from the functions that make investment decisions. The CRO has responsibility for the Risk Control function and reports to the CEO and, if necessary, directly to the board of directors. Compliance reports to the CEO and, if necessary, to the board of directors.

The third line of defence is internal audit, which in AP3's case is handled by external auditors. The internal auditors are appointed by the board of directors through the audit committee and are independent from AP3 and its operating activities. They report to the board via the audit committee. A review of internal audit is conducted every year on behalf of the audit committee. Spe-

cific focus areas are proposed by internal audit itself, as well as by the audit committee or the control functions. The audit committee then decides which focus areas the review will address.

AP3 categorises risk as follows:

Enterprise level risk – risk relating to AP3's mission, objectives and governance.

Non-financial risk – risk relating to processes, systems, human resources, statute and legal compliance.

Financial risk – risk arising in relation to investing activities.

Non-financial risk and non-financial risk management

Non-financial risk covers three main areas: operating risk, legal compliance risk and reputation risk. Non-compliance risk is the risk of sub-optimal acts due to failure to conform with legislation, government regulations and other external rules or with internal instructions and guidelines that regulate AP3's operations. Reputation risk is the risk of negative publicity or events that damage the Fund's reputation.

Operating risk is the risk of losses arising due to inadequate or deficient processes, systems, staff or external events such as fraud. Losses can be financial, a lost benefit, extra work, the loss of reputation and/or damage to public confidence in the Fund.

AP3 has six categories of operating risk: process risk, personnel risk, systemic risk, data security risk, model risk and legal risk. Operating risk is limited through relevant policies, training, good continuity planning and investment in organisational development.

The Fund conducts an annual evaluation to identify and evaluate all risks. The result of this process is presented to the audit committee and the board of directors. Any incidents must be reported. Follow-up takes place operationally and also at executive management and board level.

AP3 has six categories of operating risk

- 1 Process risk
 - 2 Personnel risk
 - 3 Systemic risk
 - 4 Data security risk
 - 5 Model risk
 - 6 Legal risk
-

Financial risk and financial risk management

Financial risk arises in the Fund's main operating activity, which is the management of investments in different types of asset. These risks are taken knowingly in order to generate returns. Financial risk consists of market, credit and liquidity risk.

Risk types	How they are managed
<p>Market risk is the risk that the value of an asset may fall due to changes in asset prices on the financial markets, for example changes in equity prices, bond yields and currencies. It can be shown in absolute or relative terms and can be forward-looking (ex ante) or retrospective (ex post). The most common ways to measure risk are volatility,¹ value at risk¹ (VaR), tracking error,¹ sensitivity analysis and stress tests.</p>	Market risk is the dominant risk in the AP3 portfolio. It is monitored on a daily basis for the entire portfolio and for individual mandates. AP3 generates investment returns by managing risk within specific limits.
<p>Credit risk is the general risk of incurring a loss due to the failure of a party in a financial transaction to meet its obligations, regardless of the cause. It can be divided into issuer risk, counterparty risk and settlement risk.</p>	
<p>Issuer risk is the risk that the issuer of a financial security will default and be unable to meet repay the nominal amount on the maturity date.</p>	AP3 limits issuer risk by working applying fixed limits for total credit risk. Exposure to individual issuers is limited by using aids such as credit ratings. The risk management committee regularly reviews risk relating to specific issuers and groups of issuers.
<p>Counterparty risk is the risk of a party to a transaction being unable to fulfil obligations under a bilateral financial contract such as a derivative or currency transaction or a deposit or buyback.</p>	AP3 actively seeks to limit counterparty risk by selecting counterparties with a good credit rating. AP3 also requires counterparties to sign ISDA agreements ¹ with the Fund. These regulate how receivables and liabilities are managed if either counterparty can no longer fulfil its commitments. AP3 also insists on CSA agreements, ¹ which require a counterparty with an outstanding liability to provide security in cash or securities.
<p>Settlement risk arises during settlement of financial contracts if the parties cannot fulfil their commitments simultaneously.</p>	Where possible, AP3 eliminates delivery risks on currency transactions through CLS, ¹ a system for simultaneous settlement of transactions through an independent third party.
<p>Liquidity risk is the risk that AP3 cannot make intended or necessary changes to the portfolio structure without incurring excessive transaction costs. Generally speaking, the Fund's most liquid assets are equities and government bonds with a high credit rating. Corporate bonds, unlisted equities and real estate are usually less liquid.</p>	AP3 manages liquidity risk via a balanced mix of asset types with both high and low liquidity. For refinancing risk, the Fund monitors future payment obligations versus available liquidity to minimise the risk of excessive financing costs. AP3 also needs at all times to have available liquidity to settle its commitments as a capital buffer for the pension system.

Monitoring limits

The Fund's independent risk control function is responsible for measuring and monitoring financial risk. Daily controls are made to ensure that limits are complied with and that exposure and risk remain within approved maximum and minimum levels. Limits can be expressed as the size of a position, risk expressed as VaR,¹ tracking error¹ or other measure relevant to the structure of the mandate. They can also be expressed as consultation levels and sometimes as stop loss levels,¹ which are a way to reduce the risk of loss on a specific mandate.

1) See Glossary, p 77

Five-year summary

	2018	2017	2016	2015	2014
Income and flows					
<i>SEK bn</i>					
Net result	2.2	28.2	28.0	19.6	35.0
Net flow to pension system	-6.8	-7.4	-6.6	-4.9	-5.1
Fund capital at 31 Dec ¹	340.7	345.2	324.4	303.0	288.3
Return and expenses, total portfolio					
<i>%</i>					
Return before expenses	0.7	8.9	9.5	6.9	13.8
Operating expenses	0.06	0.06	0.06	0.06	0.07
Commission expenses	0.03	0.05	0.06	0.06	0.06
Return after expenses	0.6	8.8	9.4	6.8	13.7
Inflation	2.0	1.7	1.7	0.1	-0.3
Real return after expenses	-1.4	6.9	7.6	6.7	14.1
<i>SEK bn</i>					
Income (incl. commission expenses)	2.4	28.4	28.2	19.8	35.2
Operating expenses	0.2	0.2	0.2	0.2	0.2
Result after expenses	2.2	28.2	28	19.6	35
Annualised nominal return after expenses					
<i>%</i>					
Five years (2014-2018)	7.8	10.5	10.9	8.4	8.8
10 years (2009-2018)	8.5	6.1	5.7	5.7	6.8
Risk					
Risk (1-yr standard deviation) for total portfolio, %	5.4	3.5	6.2	7.0	4.7
Risk (1-yr standard deviation) for liquid assets, %	6.4	4.0	7.2	8.0	5.2
Sharpe ratio	0.3	2.8	1.6	1.0	2.8
Sharpe ratio liquid assets	neg	2.2	1.1	0.5	2.3
Information ratio, active management	neg	1.9	1.4	0.9	1.4
Risk (10-yr standard deviation), %	6.3	7.6	8.0	8.1	7.8
Currency exposure					
% of total portfolio ²	17.7	15.0	17.5	22.8	24.4
External management					
% of total portfolio	26	25	29	31	33
Asset management expenses					
<i>% of assets under management</i>					
Operating expenses	0.06	0.06	0.06	0.06	0.07
Operating and commission expenses	0.09	0.10	0.12	0.12	0.12
No. of employees at 31 Dec	59	57	57	51	57

1) Fund capital at 1 January 2001 was SEK 134.0 billion.

2) Excluding exposure to SEK-listed companies with foreign domicile.

Income statement

SEK m	Note	2018	2017
Income			
Net interest income	2	2,491	1,546
Dividends received		5,316	5,017
Net income from listed shares and participations	3	-11,676	20,778
Net income from unlisted shares and participations	4	9,029	6,519
Net income from fixed income assets		-679	825
Net income from derivatives		-6,818	-1,695
Net income from currencies		4,860	-4,405
Net commission expenses	5	-117	-152
Total income		2,404	28,434
Operating expenses			
Staff costs	6	-129	-123
Other administrative expenses	7	-73	-72
Total operating expenses		-202	-195
Net result for the year		2,202	28,239

Balance sheet

SEK m	Note	31 Dec 2018	31 Dec 2017
Assets			
Shares and participations			
Listed	8, 19	137,256	161,494
Unlisted	9, 19	67,905	56,861
Bonds and other fixed income assets	10, 19	139,427	135,721
Derivatives	11, 19, 21	4,600	3,636
Cash and cash equivalents		1,005	571
Other assets	12, 21	7,836	8,623
Prepaid expenses and accrued income	13	1,083	1,063
Total assets		359,111	367,970
Fund capital and liabilities			
<i>Liabilities</i>			
Derivatives	11, 19, 21	1,713	5,228
Other liabilities	14, 21	16,673	17,426
Deferred income and accrued expenses	15	59	77
Total liabilities		18,444	22,731
<i>Fund capital</i>			
Fund capital at 1 Jan		345,239	324,375
Net payments to pension system	16	-6,773	-7,375
Net result for the year		2,202	28,239
Total fund capital		340,668	345,239
Total fund capital and liabilities		359,111	367,970
Memorandum items	17, 22		

Notes to the financial statements

The Third Swedish National Pension Fund (AP3), corporate identity number 802014-4120, is one of the funds that manage the capital buffer of the Swedish pension system. AP3 is headquartered in Stockholm. The board of directors approved the annual financial statements for 2018 on 18 February 2019. The income statement and balance sheet are subject to government approval.

NOTE 1 Accounting and valuation policies

The National Pension Insurance Funds Act (2000:192) requires the annual accounts to be prepared in conformity with generally accepted accounting principles, which involves recognition of fund assets at market value. AP1, AP2, AP3 and AP4 have agreed and applied shared accounting and valuation policies, as summarised below.

The AP funds are gradually adapting their accounting and valuation principles to the International Financial Reporting Standards (IFRS). The IFRS are being developed and hitherto the funds have focused on adapting to IFRS 7 and IFRS 13. Full adjustment to IFRS would not significantly affect reported income and capital. AP3 meets the qualification requirements for designation as an investment company as per IFRS 10. The only difference as against currently effective IFRS is that AP3 does not prepare a statement of cash flows.

Transaction day accounting

Purchases and sales of securities and derivatives on the money, bond, equity and currency markets are recognised in the balance sheet on the transaction date, that is the point when material rights, and therefore risks, are transacted between the parties. Receivables and liabilities that fall between the transaction and settlement dates are reported under other assets and other liabilities respectively. Other transactions, especially relating to unlisted equities, are recognised in the balance sheet on the settlement date, in conformity with market norms.

Net accounting

AP3 recognises assets and liabilities net in the balance sheet where there is a legal right to offset transactions and an intention exists to provide net cash consideration or to realise the asset and receive consideration for the liability simultaneously.

Foreign currency translation

Foreign currency transactions are shown in Swedish kronor at the exchange rate on the transaction date. Foreign currency assets and liabilities are recognised in Swedish kronor at the exchange rate on the balance sheet date.

Changes in the values of foreign currency-denominated assets are divided into the change attributable to the change in the value of the asset or liability and the change caused by exchange rate movements. Exchange rate gains or losses arising due to exchange rate changes are recognised in the income statement under net income from currencies.

Shareholdings in subsidiaries and associates

Shareholdings in, and loans to, subsidiaries and associates are recognised at fair value, in conformity with the National Pension Insurance Funds Act. Fair value is measured using the same method as for unlisted shares and investments. There is no requirement to prepare consolidated financial statements. Loans to subsidiaries and associates that are intended to be held to maturity are measured at fair value under the fair value option in IFRS 9. However, the entire change in value is recognised as part of the equity holding under net income from unlisted shares and investments.

Measurement of financial instruments

All AP3's investments are measured at fair value. Realised and unrealised changes in value are recognised in the income statement. Hence, items presented under net income per asset category include realised and unrealised income. Equity instruments are held for trading and are therefore measured at fair in the income statement. Debt instruments are held for trading and are therefore measured at fair value in the income statement. Loans to subsidiaries and associates are intended to be held to maturity, but here the fair value option is used to comply with the requirement of the National Pension Funds Insurance Act that these instruments are measured at fair value. When the financial statements make reference to benchmark indices, please consult the AP3 website for information on the specific index. The AP funds track all their assets on a fair value basis. The method for measuring fair value is described below.

Listed shares and investments

Shares and investments traded on a regulated market or trading platform are measured using the price quoted by the relevant index vendor. This price is usually the mid-rate. Holdings not included in an index are valued at listed prices observable in an active market. Brokerage fees are recognised under net income from listed equities.

Unlisted shares and investments

Shares and investments not traded on a regulated market or trading platform are measured at fair value based on the valuation received from the counterparty or other external party. Valuations are updated when new valuations are received and are adjusted for cash flows up to the reporting date. AP3 may revise a valuation where strong grounds exist for believing that the valuation is wrong. Fair value measurement of unlisted shares and investments follows the International Private Equity and Venture Capital Valuation (IPEV) guidelines or equivalent valuation principles and is generally based on transactions with third parties. However, other valuation methods can be applied.

Unlisted real estate shares are measured on the basis of their net asset value, provided they have not been transacted on a secondary market. Holdings in unlisted real estate companies are measured to reflect deferred tax liability and at the value applied in real estate transactions. This differs from the value that real estate companies apply in their financial statements.

Bonds and other fixed income assets

Fair value of bonds and other fixed income assets is measured using the official market price (usually the bid rate) quoted by the index vendor. Holdings not included in an index are valued at listed prices observable in an active market. Where an instrument is not traded on an active market and reliable market prices are unavailable, the instrument is measured using generally accepted valuation models, whereby cash flow is discounted to the relevant valuation curve.

Interest income is recognised using the effective interest method based on amortised cost. Amortised cost is the discounted present value of future payments, where the discount rate corresponds to the effective interest rate at the time of purchase. Acquired premiums and discounts are recognised as interest income until the coupon rate changes or the instrument matures. They are recognised in interest income. Changes in value arising due to movements in interest rates are recognised under net income from fixed income assets, while changes in value arising from exchange rate movements are recognised under net income from currencies.

Derivatives

The fair value of derivatives is measured using rates on the reporting date. In cases where instruments are not traded in an active market and no market prices are available, valuations are made using generally accepted theoretical models whose inputs consist exclusively of observable market data.

Derivative contracts with a positive fair value on the reporting date are recognised as assets, while contracts with a negative market value are recognised as liabilities. Changes in value arising from exchange rate movements are recognised in the income statement under net income from currencies, while other changes in value are recognised under net income from derivatives.

Buybacks

In a true buyback (repurchase), the asset remains on the balance sheet and cash received is recognised as a liability. The divested security is recognised under pledged assets in the balance sheet. The cash value difference between spot and forward legs is allocated over the term to maturity period and is recognised as interest.

Securities lending

Loaned securities are recognised in the balance sheet at fair value and consideration received is recognised as interest income in the income statement. Collateral received for loaned securities may consist of securities and/or cash. In cases where AP3 does not have the right of disposal over the cash collateral received, this is recognised in the balance sheet asset as an asset and a corresponding liability is created. In cases where AP3 does not have the right of disposal over the asset, the loaned security is recognised not in the balance sheet but separately under pledged assets, contingent liabilities and commitments. The value of loaned securities and the collateral paid to secure them is also recognised under this item.

cont. Note 1

Items recognised directly in fund capital

Payments to and from the pension system are recognised directly in fund capital.

Commission expenses

Commission expenses are recognised as a deduction from operating income in the income statement. They consist of external costs for asset management services, such as custody account fees and fixed commissions to external managers, and fixed commissions for exchange-traded funds. Performance-based fees, payable when a manager produces returns above an agreed level and where profit sharing applies, are recognised as a deduction from net income for the relevant asset class in the income statement.

Management fees for unlisted shares and investments deemed repayable prior to profit sharing, and where repayment is likely, are recognised in cost and included in unrealised income. In other cases, they are recognised as commission expenses.

Operating expenses

All management expenses, excluding brokerage fees, fees to external managers and custodian fees, are recognised as operating expenses. Investments in equipment and proprietary and purchased computer software are normally expensed as they arise.

Taxes

AP3 is exempt from all income tax on investments in Sweden. Dividend and coupon taxes payable in some countries are recognised on a net basis in the relevant income category in the income statement.

As of 2012, AP3 is VAT-registered and liable to pay value added tax on purchases outside Sweden. AP3 is not entitled to reclaim VAT outlays. VAT is expensed under the relevant item.

Rounding off

Minor discrepancies may occur in the tables in this report due to the rounding up or down of individual figures.

NOTE 2 Net interest income

SEK m	2018	2017
Interest income		
Bonds and fixed income assets	2,337	1,381
Securities lending, equities	63	84
Securities lending, bonds	65	59
Other interest income	26	23
Total interest income	2,491	1,547
Interest expenses		
Other interest expenses	0	0
Total interest expense	0	0
Net interest income	2,491	1,546

The introduction of IFRS 9 on 1 January 2018 and changes to IAS 1 mean that the fixed income component of derivative instruments is no longer recognised as net interest income. Instead, it is recognised as net income from derivatives. Comparative figures have been adjusted to facilitate comparison and thus differ from the figures reported in the 2017 annual report.

NOTE 3 Net income from listed shares and participations

SEK m	2018	2017
Income from listed shares and participations	-11,622	20,838
Brokerage fees	-54	-59
Net income from listed shares and participations	-11,676	20,778

NOTE 4 Net income from unlisted shares and participations

SEK m	2018	2017
Net capital gain	1,213	1,860
Unrealised changes in value	7,816	4,659
Net income from unlisted shares and participations	9,029	6,519

Recognition of external asset management fees in unlisted assets is in conformity with two different principles depending on whether or not the underlying management contract provides for repayment prior to the sharing of profit from future profitable disposals. Where the contract allows repayment, the fees are recognised under the cost of the asset and, therefore, under unrealised net income from unlisted assets. Thus, repaid management fees have a positive impact on unrealised income. Where the contract does not provide for repayment, management fees are expensed under commission expenses.

In 2018, SEK 296 million (220) was paid in management fees for unlisted assets, of which SEK 280 million (198) provided for repayment under the policy above. SEK 38 million (161) was repaid, resulting in a charge to income from unlisted shares and participations of SEK 242 million (37). Paid fees where the underlying contracts did not provide for repayment totalled SEK 15 million (23) and are recognised as commission expenses. See Note 5, Commission expenses.

NOTE 5 Commission expenses

SEK m	2018	2017
External commissions, listed assets	87	116
External commissions, unlisted assets	16	23
Other commission expenses incl. custodian bank costs	14	13
Total commission expenses	117	152

Performance-based fees of SEK 144 million (118) are not recognised in commission expenses. SEK 141 million (113) of this figure relates to listed equities and SEK 3 million (5) to unlisted shares and investments. Performance-based fees are recognised in net income for each asset class.

Underlying fees for total return swaps (TRS)¹ are not recognised in commission expenses but as a change in value under net income from derivatives. Underlying TRS costs were SEK 3 million (4).

1) See Glossary, p. 77.

Notes

NOT 6 Employees

2018	2018		2017	
	total	female	total	female
Average no. of employees	57	22	56	21
No. of employees at 31 Dec	59	23	57	21
No. in executive management at 31 Dec	5	3	4	2

Staff costs in SEK thousand, 2018	Salaries and remuneration	Variable remuneration	Pension plan expenses	of which salary sacrifice	Social security expenses incl. special payroll tax	Total
Chairman of the Board, Pär Nuder	110				35	145
Other directors	515				139	654
Total	626				174	800
CEO Kerstin Hessius	3,802		2,327	917	1,759	7,888
Executive management excl. CEO						
Eva Boric, joined Aug 2018	786		473		362	1,621
Mattias Bylund	1,910		532		729	3,171
Kerim Kaskal, joined Aug 2018	1,099		457	106	456	2,012
Mårten Lindeborg, deceased Aug 2018	1,943		573		749	3,265
Lil Larås Lindgren	1,456		494		577	2,526
Total executive management excl. CEO	7,193		2,529	106	2,873	12,595
Other employees	57,697	2,873	25,674	2,060	17,853	104,098
Total employees	68,692	2,873	30,529	3,082	22,486	124,581
Other staff costs						4,084
Total staff costs	69,318	2,873	30,529	3,082	22,660	129,464

Staff costs in SEK thousand, 2017	Salaries and remuneration	Variable remuneration	Pension plan expenses	of which salary sacrifice	Social security expenses incl. special payroll tax	Total
Chairman of the Board, Pär Nuder	111				35	145
Other directors	517				130	648
Total	628				165	793
CEO Kerstin Hessius	3,597		2,315	917	1,692	7,603
Executive management excl. CEO						
Mattias Bylund	1,912		492		720	3,124
Mårten Lindeborg	3,012		897		1,164	5,073
Lil Larås Lindgren	1,421		486		565	2,472
Total executive management excl. CEO	6,345		1,875		2,448	10,669
Other employees	54,580	4,076	24,399	1,940	17,398	100,453
Total employees	64,522	4,076	28,589	2,857	21,538	118,725
Other staff costs						3,215
Total staff costs	65,150	4,076	28,589	2,857	21,703	122,733

cont. Note 6

Board of directors

The government sets the remuneration of directors. As of 2000, annual fees of SEK 100,000 are paid to the Chairman, SEK 75,000 to the Deputy Chairman and SEK 50,000 to other directors. The government has approved additional remuneration of up to SEK 100 thousand for directors who sit on the remuneration committee and audit committee. Remuneration of SEK 100 thousand (100) was paid for committee engagements in 2018.

Committees

The remuneration committee had three members in 2018. It makes recommendations to the board on the CEO's salary and benefits and AP3's salary structure prior to salary reviews. It also makes recommendations to the board of directors on the variable remuneration programme. Decisions in these matters are taken by the board. The audit committee has three members and its role is to monitor and issue recommendations to the board in financial reporting, accounting, internal control, risk management and external audit.

CEO's remuneration

The board of directors sets the salary and benefits of the CEO. Under the terms of the CEO's employment contract, AP3 pays retirement pension and sickness insurance premiums totalling 30% of gross salary. In the event of termination, the contractual notice period is six months for both AP3 and the CEO. If AP3 terminates the CEO's contract, 18 months' severance pay may be payable. Severance salary and pay are to be offset against any income from new employment or business activity. No contract provisions exist for early retirement. In 2018 the CEO received taxable benefits of SEK 6 thousand (1). The CEO does not participate in the performance-based incentive scheme.

Executive management committee excl. CEO

The executive management committee consists of the CEO, CIO, COO, Head of Business Support & Control and the Head of Communications.

The employment terms and conditions of executive management reflect collective wage agreements with the Employers' Organisation of the Swedish Banking Institutions and three trade union members of the SACO confederation: JUSEK, the Swedish Association of Graduates in Business Administration and Economics, and the Swedish Association of Graduate Engineers. Hence, there are no special agreements on termination, severance pay or early retirement for any members of executive management. Executive management committee members received benefits ranging from SEK 3 (0) to SEK 19 (6) in 2018. Executive management does not participate in the performance-based variable remuneration scheme.

Remuneration

AP3 follows the government's guidelines for employment conditions for AP fund employees. The guidelines state that remuneration should be competitive without being market-leading. The chair of the remuneration committee handles remuneration issues on behalf of the board of directors. The board sets the remuneration and other benefits of the CEO and the remuneration committee approves the remuneration and benefits of senior managers based on the CEO's recommendations. The board also sets the remuneration framework for other employees.

As in prior years, AP3 participated in the Towers Watson annual remuneration survey in order to benchmark staff salaries against other financial market personnel in the private and public sectors. By taking part in the survey, the Fund seeks to ensure that its salary levels remain in line with the government's guidelines. The survey showed that the majority of AP3 personnel receive remuneration at or around the benchmark group median level. The board of directors therefore concludes that the pay structure and remuneration levels for the CEO, senior managers and all employees are market-based, competitive without leading the market, and reasonable and appropriate. The board is also of the opinion that the Fund complies with government pay guidelines and that no exceptions exist which require separate reporting.

Performance-based remuneration programme

The board of directors has approved a performance-based remuneration programme modelled on government guidelines issued in April 2009 and adjusted for guidelines on remuneration in insurance and other financial entities issued by the Financial Supervisory Authority in March 2010. The programme applied in 2018 and entitled employees in the asset management department to receive performance-based remuneration of up to two months' salary on the fulfilment of specific agreed criteria.

Payment of 60% of variable remuneration is deferred for three years. Employees in administrative departments have the chance to receive variable remuneration of a month's salary. AP3's net result must be positive before variable remuneration is payable to any employee. The CEO and members of the executive management committee are not part of the variable performance-based remuneration programme. AP3 reserved SEK 2.9 million (4.1) in the 2018 accounts for variable remuneration contingent on fulfilment of agreed targets. This sum was equivalent to the payment of an average of 0.6 months' salary (0.9) in variable performance-based remuneration to each employee covered by the programme.

Sickness absence

Sickness absence in 2018 was 1.7% (0.8) for male employees and 1.8% (0.7) for female staff.

Other

Under the guidelines of the Global Reporting Initiative, companies should disclose whether freedom of association and collective bargaining exists and if any employees are younger than 18. In compliance with Swedish law, AP3 allows freedom of association and collective bargaining. AP3 has no employees aged under 18.

NOTE 7 Other operating expenses

SEK m	2018	2017
Office rental cost	11	13
Communications and data costs	44	43
Services purchased	11	11
Other	7	6
Total other operating expenses	73	72

Services purchased include fees to auditors and in 2018 included fees of SEK 0.2 million (0.8) for consulting services ordered by the Government Offices.

SEK thousand	2018	2017
Audit assignments		
PwC	706	738
Other services by audit firms		
PwC	8	-
Total fees to audit firms	714	738

NOTE 8 Listed shares and participations

SEK m, fair value	31 Dec 2018	31 Dec 2017
Swedish equities	39,241	45,988
Investments in Swedish funds	1,068	1,213
Foreign equities	73,984	88,810
Investments in foreign funds	22,963	25,484
Total listed shares and participations	137,256	161,494

A schedule of the five largest Swedish and foreign equity holdings is shown on page 73. A schedule of all AP3's equity holdings is available at ap3.se. See Notes 1 and 17 for information on securities lending. Collateral received in relation to securities lending totalled an average of 103% of the market value of the assets loaned.

Notes

NOTE 9 Unlisted shares and participations

As of 31 December 2018, AP3's participations commitments in unlisted securities via private equity firms and funds were as follows. The schedule below shows the five largest holdings in terms of invested capital.

SEK m, Fair value	31 Dec 2018	31 Dec 2017
Shares in Swedish subsidiaries and associates	42 169	34 739
Shares in foreign subsidiaries and associates	3 161	3 093
Other unlisted Swedish shares and participations	2 881	1 807
Other unlisted foreign shares and participations	19 694	17 222
Total unlisted shares and participations	67 905	56 861

Shares and participations in Swedish subsidiaries and associates

	Corporate identity no.	Registered office	Number of shares	Share of equity capital/votes	Fair value	100% capital 2018	100% result 2018
Vasakronan Holding AB	556650-4196	Stockholm	1,000,000	25%	17,704	60,271	12,902
Hemsö Fastighets AB	556779-8169	Stockholm	70,000,700	70%	10,050	13,199	3,092
Hemsö Intressenter AB	556917-4336	Stockholm	25,000	50%	2,154		
Hemsö Norden KB	969769-2961	Stockholm		50%	288	576	195
Trophi Fastighets AB	556914-7647	Stockholm	1,000,000	100%	5,612		
Ellevio Holding 1 AB	559005-2444	Stockholm	10,000	20%	2,300		
Fastighets AB Regio	559013-4911	Stockholm	4,000,003	96%/98%	3,344		
Trenum AB	556978-8291	Gothenburg	500	50%	712		
Gysinge Skog AB	559164-0817	Falun		50%	5		
Total shares and participations in Swedish subsidiaries and associates					42,169		

Shares and participations in foreign subsidiaries and associates

	Corporate identity no.	Registered office	Number of shares	Share of equity capital/votes	Fair value
OMERS Farmoor 2 Holdings B.V.		Netherlands	149	100%/49%	3,161
Total shares and participations in foreign subsidiaries and associates					3,161

Five largest holdings in other Swedish unlisted shares and participations

	Registered office	Share of equity capital	Acquisition value 2018
Bergvik Skog AB	Falun	5%	236
Verdane Capital VIII	Stockholm	15%	215
Verdane Capital IX	Stockholm	19%	198
Altor Fund IV	Stockholm	2%	187
Valedo Partners Fund I	Stockholm	20%	124

Five largest holdings in other foreign unlisted shares and participations

	Registered office	Share of equity capital	Acquisition value 2018
Innisfree PFI Secondary Fund 2 (ISF2)	London	21%	779
RMK GAC	USA	100%	735
Hermes Infra Spring II	Guernsey	26%	666
LLCP CO INVESTMENT FUND	USA	26%	398
Hancock GAC	USA	100%	384

A schedule of all holdings, including the initial year of participations and the size of participations commitment, is available at ap3.se.

NOTE 10 Bonds and other fixed income assets**Bonds and other interest-bearing securities by class of issuer**

SEK m, fair value	31 Dec 2018	31 Dec 2017
Swedish state	6 644	12 499
Swedish municipalities	102	179
Swedish mortgage lenders	6 203	5 882
Other Swedish issuers		
Financial institutions	657	2 416
Non-financial institutions	19 756	22 913
Foreign states	70 592	56 630
Other foreign issuers	32 546	32 536
Total	136 499	133 055
Fixed income funds	2 927	2 666
Total	139 427	135 721

Bonds and other interest-bearing securities by class of instrument

SEK m, fair value	31 Dec 2018	31 Dec 2017
Inflation-indexed bonds	23 565	20 573
Other bonds	102 672	92 625
Certificates	2 901	13 051
Unlisted promissory notes	7 362	6 806
Total	136 499	133 055
Fixed income funds	2 927	2 666
Total	139 427	135 721

SEK 8,860 million (9,163) of bonds and other fixed income securities relates to reinvested cash collateral received for securities lending. See Notes 1 and 17 for information on securities lending. Collateral received in relation to securities lending totalled an average of 103% of the market value of the assets loaned.

NOTE 11 Derivatives, gross

SEK m		31 Dec 2018		31 Dec 2017	
		Positive fair value	Negative fair value	Positive fair value	Negative fair value
Equity-related instruments					
Options, cleared	Held, buy	-	-	-	-
	Held, sell	0	-	2	-
	Drawn, buy	-	-	-	-
	Drawn, sell	-	0	-	-1
Forwards		14	-26	401	-103
Swaps		0	-20	23	-60
Total		14	-47	425	-163
- cleared		14	-27	403	-104
Fixed income and credit-related instruments					
Options, cleared	Held, buy	-	-	-	-
	Held, sell	-	-	-	-33
	Drawn, buy	-	-	6	-
	Drawn, sell	-	-	14	-
FRAs/forwards		59	-55	175	-57
CDS		33	-	759	-2,129
Swaps		742	-526	548	-7
Total		834	-581	1,501	-2,227
- cleared		59	-55	195	-91
Currency-related instruments					
Options, OTC	Held, buy	278	-	152	-
	Held, sell	556	-	282	-
	Drawn, buy	-	-335	-	-251
	Drawn, sell	-	-274	-	-115
Forwards		2,918,	-475	1,276	-2,472
Swaps		-	-	-	-
Total		3,752	-1,085	1,709	-2,838
Effect of netting		-	-	-	-
Total derivatives		4,600	-1,713	3,636	-5,228

AP3 is mandated to use derivative securities primarily to improve the efficacy of asset management or to manage risk.

Equity and interest rate derivatives are preferably traded on standardised markets through cleared products, which limits counterparty risk to the clearing house. Currency and credit derivative markets are over-the-counter, which means that trades executed there are not standardised or subject to clearing. Thus, counterparty or settlement risk generally arises. Counterparties for non-cleared transactions are limited and sanctioned by the board of directors and all exposure to such counterparties is continuously monitored.

AP3 uses standardised market contracts, including ISDA agreements, for OTC trading.

Drawn put options are positions in different options strategies taken to manage portfolio risk. Where a put option requires AP3 to deliver an underlying security, AP3 always holds enough of that security to meet its delivery obligation.

More information on AP3's risk management in relation to derivatives can be found in the risk management plan at ap3.se.

Notes

NOTE 12 Other assets

SEK m	31 Dec 2018	31 Dec 2017
Trade payables	360	1,189
Buybacks	1,147	1,908
Reinvested cash collateral	6,328	5,525
Other current receivables	0	0
Total other assets	7,836	8,623

NOTE 13 Prepaid expenses and accrued income

SEK m	31 Dec 2018	31 Dec 2017
Accrued interest income	776	771
Accrued dividends	85	102
Tax reclaimables	162	131
Prepaid expenses	48	49
Accrued premiums on equity loans	12	10
Total prepaid expenses and accrued income	1,083	1,063

NOTE 14 Other liabilities

SEK m	31 Dec 2018	31 Dec 2017
Accounts payable	12	9
Trade payables	314	1,177
Payroll taxes	1	1
Staff PAYE taxes	3	3
Buybacks	1,148	1,539
Cash collateral received	15,187	14,688
Other liabilities	7	9
Total other liabilities	16,673	17,426

NOTE 15 Deferred income and accrued expenses

SEK m	31 Dec 2018	31 Dec 2017
Accrued external asset management costs	35	52
Other accrued expenses	14	13
Variable remuneration incl. social security expenses	10	12
Total deferred income and accrued expenses	59	77

Forty percent of a payment of variable remuneration earned in 2016 was made in 2017. The outstanding balance will be paid in 2019. Forty percent of a payment of variable remuneration earned in 2017 was made in 2018. The outstanding balance will be paid in 2020. A provision for variable remuneration was made in 2018. Forty percent of this amount will be paid in 2019 and the outstanding balance in 2021.

NOTE 16 Fund capital

Net payments to the pension system	31 Dec 2018	31 Dec 2017
Fund capital at 1 Jan	345,239	324,375
Paid-in pension contributions	69,552	66,850
Paid-out pension disbursements	-76,110	-73,999
Transfer of pension rights to the EU	-1	-2
Settlement of pension rights	2	1
Administration fee to the Swedish Pensions Agency	-216	-226
Total net payments to the pension system	-6,773	-7,375
Net result	2,202	28,239
Fund capital at 31 Dec	340,668	345,239

NOTE 17 Pledged assets, contingent liabilities and commitments

Pledged assets, contingent liabilities and equivalent collateral	31 Dec 2018	31 Dec 2017
Pledged assets for buybacks		
Collateral received	7,475	7,433
Collateral pledged	1,148	1,543
Pledged assets for derivatives trading		
Cash collateral received	178	-
Cash collateral pledged	-	739
Loaned securities for which collateral received		
Loaned securities	15,191	14,695
Cash collateral received	15,187	14,688
Securities loaned against collateral in securities		
Loaned securities	52,779	44,476
Collateral received in securities	53,583	47,705

Outstanding commitments

SEK m	31 Dec 2018	31 Dec 2017
Unlisted equities	10,742	8,936
Real estate and timberland funds	4,423	3,991
Subscription commitments	10,500	10,500

The collateral shown above is presented in Notes 10, 12 and 14.

NOTE 18 Currency exposure

Assets subject to currency exposure at 31 Dec 2018

SEK m	USD	NOK	JPY	GBP	Other	Total
Shares and investments	54,630	764	6,023	9,205	43,976	114,596
Exposure to SEK-listed companies with foreign domicile	-	-	-	648	3,121	3,769
Bonds and other fixed income securities	78,651	713	-	7,859	2,261	89,484
Derivatives	225	-14	-55	-371	-1,610	-1,824
Other investment assets	4,957	21	210	3,268	758	9,213
Foreign currency exposure, gross	138,463	1,484	6,178	20,609	48,505	215,239
Currency hedges	-102,011	8,418	5,247	-14,851	-47,626	-150,823
Total currency exposure	36,452	9,903	11,425	5,758	879	64,416

Assets subject to currency exposure at 31 Dec 2017

SEK m	USD	NOK	JPY	GBP	Other	Total
Shares and investments	60,536	1,301	2,417	11,412	53,204	128,870
Exposure to SEK-listed companies with foreign domicile	-	-	-	664	1,642	2,306
Bonds and other fixed income securities	61,262	599	191	8,323	3,116	73,491
Derivatives	-378	-272	255	-310	-2,596	-3,300
Other investment assets	4,245	5	-166	3,149	1,290	8,524
Foreign currency exposure, gross	125,666	1,633	2,698	23,237	56,657	209,891
Currency hedges	-89,284	12,043	4,357	-17,534	-65,303	-155,721
Total currency exposure	36,382	13,676	7,054	5,703	-8,646	54,170

NOTE 19 Financial instruments, price and valuation hierarchy

Investment assets per valuation category at 31 Dec 2018

SEK m	Level 1	Level 2	Level 3	Total
Listed shares and investments	137,256	-	-	137,256
Unlisted shares and investments	-	-	67,905	67,905
Bonds and other fixed income assets	131,796	-	7,631	139,427
Derivatives, positive market value	73	4,528	-	4,600
Total investment assets	269,124	4,528	75,536	349,188
Derivatives, negative market value	-81	-1,631	-	-1,713
Total	269,043	2,896	75,536	347,475

Investment assets per valuation category at 31 Dec 2017

SEK m	Level 1	Level 2	Level 3	Total
Listed shares and investments	161,494	-	-	161,494
Unlisted shares and investments	-	-	56,861	56,861
Bonds and other fixed income assets	128,534	-	7,187	135,721
Derivatives, positive market value	597	3,039	-	3,636
Total investment assets	290,626	3,039	64,048	357,712
Derivatives, negative market value	-195	-5,033	-	-5,228
Total	290,431	-1,995	64,048	352,484

Change of Level 3 assets 2017-2018

SEK m	Listed shares and investments	Unlisted shares and investments	Bonds and other fixed income assets	Derivatives	Total
Carrying amount at 1 Jan	-	56,861	7,187	-	64,048
Invested	-	4,143	543	-	4,686
Sold/repaid during year	-	-1,703	-	-	-1,703
Realised change in value	-	93	-	-	93
Unrealised change in value	-	8,511	-99	-	8,412
Transfer from level 1 or 2	-	-	-	-	-
Transfer to level 1 or 2	-	-	-	-	-
Carrying amount at 31 Dec	-	67,905	7,631	-	75,536

Notes

cont. Note 19

Change of Level 3 assets 2016-2017

SEK m	Listed shares and investments	Unlisted shares and investments	Bonds and other fixed income assets	Derivatives	Total
Carrying amount at 1 Jan	-	50,497	8,690	-	59,186
Invested	-	5,536	3,759	-	9,295
Sold/repaid during year	-	-2,647	-5,262	-	-7,909
Realised change in value	-	275	-	-	275
Unrealised change in value	-	3,200	0	-	3,200
Transfer from level 1 or 2	-	-	-	-	-
Transfer to level 1 or 2	-	-	-	-	-
Carrying amount at 31 Dec	-	56,861	7,187	-	64,048

AP3 measures all holdings at fair value using a three-level hierarchy of price sources and measurement methods. Fair value is defined as the amount for which an asset could be sold or a liability settled in a normal transaction between market players on the valuation date.

Level 1: Holdings shown in the benchmark indices that AP3 uses for liquid investments in equities and fixed income securities are measured initially at the prices stated by index vendors. Where such holdings are not included in an index or the index vendor's price is not deemed to be reliable, measurement is at list prices observable in an active market. An active market relates to a market where prices are set more often than once a week. Observable prices are always the preferred measurement option and apply to the majority of AP3's assets. However, when such prices are not available, the next step in the valuation hierarchy is used for measurement.

Level 2: Reliable listed prices are unavailable for some holdings, notably some fixed income securities and most derivatives not traded over an exchange or handled by a clearing house. Measurements are based on generally acceptable models that use observable market data to establish fair value. Valuation risk for this group is regarded as limited. This group also includes certain types of transaction in which AP3 relies on price information from one or more external counterparties to establish fair value. In the case of assets whose price is deemed unreliable, for instance due to low market activity, AP3 obtains a third-party valuation to test the reasonableness of its own valuation.

Level 3: Some holdings must be valued using models based on non-observable market data. These are subject to a higher degree of subjective assessment and hence higher uncertainty. In AP3's case, they relate mostly to holdings in private equity funds and of unlisted shares in real estate companies.

AP3 measures private equity fund holdings using valuations received from external managers. AP3 requires that fund managers comply with IPEV valuation principles and that their funds are reviewed by an established audit firm. Valuations from fund managers are usually received within 90 days after the end of the quarter, which means that the declared values of AP3's holdings as of 31 December are based on fund managers' reports dated 30 September and adjusted for cash flow in the fourth quarter. AP3 assesses the reliability of these valuations to determine whether any adjustments are necessary to achieve a more accurate fair value. No adjustments were deemed necessary as of 31 December 2018. Valuations primarily reflect the underlying profitability of the investee but also how the equity market values comparable enterprises. Projected discounted future cash flow is of less importance from a valuation perspective because the AP3 private equity portfolio largely consists of buyouts.

The table provides a schedule of all AP3's investment assets by valuation category. Some 77% (82) of these assets can be valued at observable prices in an active market. A 10% write-down of the hardest-to-value assets – those with a valuation model based on non-observable input data – would reduce AP3's fund capital by 2.2% (1.9). AP3 has limited valuation risk.

NOTE 20 Financial risk

Risk measured as value at risk for the AP3 portfolio

SEK m	Min. level	Max. level	Average	31 Dec	31 Dec ¹
2018	1,025	2,930	1,918	2,747	1,966
2017	921	1,828	1,375	1,217	1,536

1) The column shows VaR for equally weighted historic data.

AP3's holdings are exposed to market and credit risks that can result in changes in value when equity prices, fixed income yields, credit spreads and currency rates change. AP3 uses the value at risk (VaR) metric to aggregate risk across all risk categories. At year-end, risk measured as VaR totalled SEK 2,747 million (1,217) for the total portfolio. AP3 measures VaR with a 95% level of confidence and a horizon of one day, meaning that negative changes in value should not exceed VaR on 19 days out of 20, assuming that market conditions follow historical patterns. AP3 bases VaR estimates on historic market data dating back 360 days. Historic data are weighted exponentially, meaning that market events in the preceding 80 days have overriding influence. The measurement method used is known as Monte Carlo simulation and is a random simulation of changes in value based on historic data. The table above shows maximum and minimum VaR and both average risk and year-end risk for the AP3 portfolio. The table also shows VaR at 31 December. Historic data are equally weighted, meaning that every day has equal significance.

AP3's risk measured as VaR varied from SEK 1,025 million (921) to SEK 2,930 million (1,828) during the year. Changes in the level of risk were due primarily to changes in market volatility, and to a lesser extent to changes in portfolio structure.

Risk exposure by risk category is shown on page 50.

Daily value at risk (VaR) for the AP3 portfolio 2018



cont. Note 20

SEK m	Credit rating				
	AAA	AA	A	BBB	<BBB- ²
Government bonds	23,135	71,309	-	-	-
Mortgage bonds	-	6,255	-	420	88
Corporate bonds	349	3,312	5,360	4,624	7,988
Deposits and buybacks	-	754	8,455	-	-
Derivatives, net	0	778	2,295	-	-
Gross exposure	23,484	82,408	16,110	5,044	8,075
Collateral received	-	-	178	-	-
Net exposure	23,484	82,408	15,932	5,044	8,075

SEK m	Credit rating				
	AAA	AA	A	BBB	<BBB- ²
Government bonds	35,258	48,599	519	-	-
Mortgage bonds	3,621	3,338	-	-	248
Corporate bonds	405	5,003	10,870	4,566	9,034
Deposits and buybacks	-	785	6,099	-	-
Derivatives, net	-	141	50	-	-
Gross exposure	39,284	57,866	17,538	4,566	9,282
Collateral received	-	-	-	-	-
Net exposure	39,284	57,866	17,538	4,566	9,282

1) Includes investments in listed fixed income securities; deposits and buybacks; non-cleared derivatives where AP3 has a claim on the counterparty; and repayments of collateral for securities lending. The table only shows exposure versus credit risk and cannot be read against the balance sheet.

2) Also includes unrated securities.

AP3's liquidity risk is limited by the National Pension Insurance Funds Act, which requires the AP funds to hold at least 30% of their fund capital in fixed income securities with low credit and liquidity risk. AP3's holdings in this category averaged 32.3% (32.2) of fund capital in 2018.

NOTE 21 Financial assets and liabilities offset in the balance sheet or subject to netting agreements

Assets, SEK m	Offsetting of financial instruments per agreement							Total in balance sheet
	Gross amount	Amount offset in balance sheet	Net balance in balance sheet	Collateral received	Net amount after offsetting	Other ¹		
Derivatives	4,529	-	4,529	1,371	178	2,980	72	4,600
Asset repurchases	1,147	-	1,147	1,147	-	0	6,328,	7,475
Non-settled transactions	-	-	-	-	-	-	361	361
Total	5,676	-	5,676	2,518	178	2,980	6,761	12,437

Liabilities, SEK m	Offsetting of financial instruments per agreement							Total in balance sheet
	Gross amount	Amount offset in balance sheet	Net balance in balance sheet	Collateral received	Net amount after offsetting	Other ¹		
Derivatives	1,631	-	1,631	1,371	-	261	82	1,713
Debt repurchases	1,148	-	1,148	1,147	-	1	-	1,148
Non-settled transactions	-	-	-	-	-	-	316	316
Total	2,779	-	2,779	2,518	-	262	398	3,176

1) Other instruments in the balance sheet not classed as subject to agreements that allow netting.

Notes

cont. Note 21

31 Dec 2017		Offsetting of financial instruments per agreement							
Assets, SEK m	Gross amount	Amount offset in balance sheet	Net balance in balance sheet		Collateral received	Net amount after offsetting	Other ¹	Total in balance sheet	
Derivatives	3,039	-	3,039	2,625	-	414	597	3,636	
Asset repurchases	1,908	-	1,908	1,539	-	369	5,525	7,434	
Non-settled transactions	-	-	-	-	-	-	261	261	
Total	4,947	-	4,947	4,164	-	783	6,383	11,330	

Liabilities, SEK m		Gross amount	Amount offset in balance sheet	Net balance in balance sheet	Offsetting of financial instruments per agreement	Collateral pledged	Net amount after offsetting	Other ¹	Total in balance sheet
Derivatives	5,033	-	5,033	2,625	739	1,669	195	5,228	
Debt repurchases	1,539	-	1,539	1,539	4	0	-	1,539	
Non-settled transactions	-	-	-	-	-	-	249	249	
Total	6,573	-	6,573	4,164	744	1,669	444	7,017	

1) Other instruments in the balance sheet not classed as subject to agreements that allow netting.

NOTE 22 Related party transactions

Parties related to AP3 are companies in which AP3 has a shareholding that gives it significant or decisive influence or in which employees of AP3 hold leading positions. Five AP3 employees served as directors of related parties in 2018: Kerstin Hessius at Vasakronan, Hemsö and Trenum; Bengt Hellström at Hemsö, Trophi, Trenum and for part of the year at Regio and Gysinge

Skog; Mårten Lindeborg at Regio until his death; Klas Åkerbäck at Regio and Trophi and Mattias Bylund at Ellevio. These directorships were unpaid. AP3 Chairman of the Board Pär Nuder also served as a director of Hemsö and in this capacity was paid a fee of SEK 468 thousand. AP3 rents its office space from Vasakronan at market rates.

Related party, SEK m	31 Dec 2018	31 Dec 2017	Related party, SEK m	31 Dec 2018	31 Dec 2017
Vasakronan Holding AB			Ellevio AB		
Interest income	9	9	Interest income	307	294
Rental cost of premises	-10	-8	Shareholder loans	3,764	3,558
Commitment to purchase, at Vasakronan's request, commercial paper issued by the company for a maximum amount of:	4,500	4,500	Trenum AB		
			Interest income	11	8
			Shareholder loans	1,512	1,174
			Capital increases during the year	169	50
Hemsö Fastighets AB			Gysinge Skog AB		
Commitment to purchase, at Hemsö's request, purchase commercial paper issued by the company for a maximum amount of:	4,000	4,000	Capital increases during the year	5	-
Hemsö Intressenter AB					
Interest income	88	88			
Shareholder loans	1,470	1,470			
Trophi Fastighets AB					
Interest income	25	36			
Shareholder loans	617	604			
Commitment to purchase, at Trophi Fastighet AB's request, commercial paper issued by the company for a maximum amount of:	2,000	2,000			
Capital increases during the year	-	140			
Regio AB					
Capital increases during the year	-	200			

Signatures of board of directors and CEO

Stockholm, 18 February 2019

Pär Nuder
Chairman

Björn Börjesson
Deputy Chairman

Malin Björkmo

Peter Englund

Torbjörn Hållö

Kerstin Lindberg Göransson

Christina Lindenius

Mikael Sandström

Elisabeth Unell

Kerstin Hessius
CEO

Our auditors' report was submitted on 18 February 2019.

Peter Nilsson
Authorised public accountant
Appointed by the government

Helena Kaiser de Carolis
Authorised public accountant
Appointed by the government

Auditor's report

for the Third Swedish National Pension Fund (AP3), Corporate Identity Number 802014-4120

Report on the audit of the financial statements

Opinion

We have audited the financial statements of the Third Swedish National Pension Fund for the 2018 financial year. The Fund's financial statements are included in the printed version of this document on pages 47–69.

In our opinion, the financial statements have been prepared in accordance with the National Pension Insurance Funds Act (2000:192) and present fairly, in all material respects, the financial position of the Third Swedish National Pension Fund as at 31 December 2018 and of its financial performance for the year then ended, according to the National Pension Insurance Funds Act.

The statutory administration report is consistent with the other parts of the financial statements.

We, therefore, recommend that the income statement and balance sheet be adopted.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (ISA) and generally accepted auditing standards in Sweden. Our responsibilities according to those standards are described in more detail in the Auditor's Responsibilities section below. We are independent of the Third Swedish National Pension Fund according to generally accepted auditing standards in Sweden and have otherwise fulfilled our ethical responsibilities according to those standards.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other information than the financial statements

This document also contain other information than the annual report and this can be found on pages 1–46 and 72–80. The Board of Directors and the Chief Executive Officer are responsible for the other information.

Our opinion on the financial statements does not cover this other information and we do not express any form of assurance conclusion regarding this other information.

In connection with our audit of the financial statements, our responsibility is to read the information identified above and consider whether the information is materially inconsistent with the financial statements. In this procedure we also take into account our knowledge otherwise obtained in the audit and assess whether the information otherwise appears to be materially misstated.

If we, based on the work performed concerning this information, conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the board of directors and the CEO

The board of directors and the CEO are responsible for the preparation of the financial statements and that they give a fair presentation in accordance with the National Pension Insurance Funds Act. The board of directors and the CEO are also responsible for such internal control as they deem necessary to enable the preparation

of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the board of directors and the CEO are required to assess the Fund's capacity to continue its operations. They disclose, as applicable, matters related to such assessments and using the going concern basis of accounting. The going concern basis of accounting is, however, not applied if the board of directors and the CEO intend to liquidate the Fund or cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs and generally accepted auditing standards in Sweden will always identify a material misstatement when it exists. Misstatements can arise from fraud or error and are considered to be material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As a part of the audit in accordance with ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement in the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of the Fund's internal control relevant to our 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 Fund's internal control.
- Evaluate the appropriateness of the accounting principles used and the reasonableness of the accounting estimates and related disclosures made by the board of directors and the CEO.
- Conclude on the appropriateness of the board of directors' and the CEO's application of the going concern basis of accounting in preparing the financial statements. We also draw a conclusion, based on the evidence obtained, as to whether any material uncertainty exists related to events or conditions that may cast significant doubt on the Fund's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion about the financial statements. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Fund to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We must inform the Board of Directors of, among other matters, the planned scope and timing of the audit. We must also inform of significant audit findings during our audit, including any significant deficiencies in internal control that we identified.

Report on other legal and regulatory requirements

Opinion

In addition to our audit of the financial statements, we have also audited the inventory of the assets managed by the Third Swedish National Pension Fund. We have also examined whether there are any qualifications regarding the board of directors' and the CEO's administration of the Third Swedish National Pension Fund for the 2018 financial year.

The audit has resulted in no grounds for qualification regarding the inventory of the assets or the administration of the Fund.

Basis for opinion

We conducted our audit in accordance with generally accepted auditing standards in Sweden. Our responsibilities under those standards are further described in the Auditor's Responsibilities section below. We are independent of the Third Swedish National Pension Fund in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with those requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of the board of directors and the CEO

The board of directors and the CEO are responsible for the financial statements and for the administration of the Fund's assets according to the National Pension Insurance Funds Act.

The board of directors is responsible for the Fund's organisation and the administration of the Fund's affairs. This includes continuous assessment of the Fund's financial situation and ensuring that the Fund's organisation is designed so that the accounting, management of assets and the Fund's financial affairs otherwise are controlled in a reassuring manner. The CEO is responsible for the ongoing administration according to the board of directors' guidelines and instructions and must among other matter take measures that are necessary to fulfil the Fund's accounting in accordance with law and handle the management of assets in a reassuring manner.

Auditor's responsibilities

Our responsibility concerning the audit of the administration and, thereby, our opinion on discharge from liability, is to obtain audit evidence to assess with a reasonable degree of assurance whether there is any reason for qualification in respect any member of the board of directors or the CEO of the Third Swedish National Pension Fund for the 2018 financial year.

Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with generally accepted auditing standards in Sweden will always identify actions or omissions that can give rise to qualification.

As a part of an audit in accordance with generally accepted auditing standards in Sweden, we exercise professional judgment and maintain professional scepticism throughout the audit. The examination of the administration is based primarily on the audit of the financial statements. Additional audit procedures performed are based on our professional judgment, with the starting point being risks and materiality. This means that we focus the examination on such actions, areas and relationships that are material for the operations and where deviations and violations would have particular significance to the Fund's situation. We examine and test decisions undertaken, support for decisions, actions taken and other circumstances that are relevant to our opinion on the administration.

Stockholm, 18 February 2019

Peter Nilsson
Authorised auditor
Appointed by the government

Helena Kaiser de Carolis
Authorised auditor
Appointed by the government

Key financial data

Change in fund capital

SEK m	2018	2017	2016	2015	2014
Fund capital at 1 Jan ¹	345,239	324,375	303,031	288,332	258,475
Net flow to pension system	-6,773	-7,375	-6,637	-4,944	-5,120
Net result	2,202	28,239	27,981	19,643	34,977
Fund capital at 31 Dec	340,668	345,239	324,375	303,031	288,332

1) Fund capital at inception in 2001 was SEK 133,975 million.

Market value per asset category

SEK bn	31 Dec 2018	31 Dec 2017	31 Dec 2016	31 Dec 2015	31 Dec 2014
Listed equities ¹					
Sweden	37.3	44.5	40.3	34.2	31.7
Europe	17.3	26.9	23.7	29.2	27.6
North America	44.1	54.0	50.4	43.9	50.1
Asia	11.2	7.6	9.2	14.5	12.4
Emerging markets	18.3	19.8	15.0	11.2	10.4
Total listed equities	128.1	152.9	138.7	132.9	132.2
Fixed income ¹					
Nominal					
Sweden	37.3	45.8	45.2	35.9	37.8
Eurozone	0.0	0.4	1.4	2.0	2.5
UK	8.2	9.0	9.3	8.5	8.5
USA	58.4	44.8	44.1	46.3	43.1
Asia	0.0	0.0	0.0	3.1	3.1
Inflation-indexed bonds					
Sweden	4.9	4.8	4.8	5.8	12.5
Eurozone	0.0	0.0	0.0	0.0	0.0
Japan	0.0	0.2	0.2		
USA	19.0	15.8	15.5	13.0	2.8
Total fixed income	127.9	120.8	120.5	114.5	110.3
Alternative investments ¹					
Real estate and infrastructure					
Vasakronan	17.7	15.2	13.8	12.2	10.2
Hemsö	14.0	11.8	10.1	8.2	6.7
Farmoor	3.2	3.1			
Regio	3.3	2.3	1.7	0.9	
Sagax	1.5	1.1	0.9	0.8	0.5
Trenum	2.2	1.6	1.3		
Trophi	6.2	5.3	6.3	3.4	2.7
Ellevio	6.1	5.4	5.2	4.8	
Timberland and agricultural land	5.3	5.0	5.7	5.5	4.8
International real estate funds ²	6.7	6.2	7.0	6.6	8.5
Total real estate and infrastructure	66.4	57.0	52.0	42.6	33.4
Unlisted equities	13.1	10.3	10.0	10.2	10.6
Other assets ³	5.3	4.1	3.0	2.7	1.8
Total alternative investments	84.7	71.4	65.1	55.5	45.8
Total	340.7	345.2	324.4	303.0	288.3

1) Cash used for position-taking in forwards has been divided among the relevant asset classes, which means the figures in the table are not fully comparable with those in the balance sheet.

2) Includes infrastructure funds.

3) Other assets include investments in convertible debentures and insurance-related risk.

Five largest holdings in Swedish listed companies

Name	No. of shares	Share of equity, %	Share of voting rights, %	Market value, SEK m
Volvo AB	19,583,014	0.92	0.49	2,271
Telefonaktiebolaget LM Ericsson AB	25,554,329	0.77	0.45	1,991
Investor AB	5,184,155	0.68	0.42	1,950
Swedbank AB	9,801,931	0.87	0.87	1,938
Atlas Copco AB	8,273,788	0.67	0.51	1,670

Ten largest recipients of brokerage fees in 2018

- ABG Sundal Collier
- Bernstein
- Carnegie
- Citi
- DNB
- Evercore ISI
- Morgan Stanley
- Nordea
- SEB
- UBS

Five counterparties that handled the largest volumes of AP3's foreign exchange trading in 2018

- Citi
- Danske Bank
- Goldman Sachs
- JP Morgan
- SEB

Five largest holdings in foreign listed companies

Name	Number of shares	Market value, SEK m
Apple Inc	926,696	1,296
Microsoft Corp	1,422,657	1,281
Alphabet Inc	123,998	1,144
Nestle SA	1,525,554	1,095
AMAZON.COM. INC.	80,366	1,070

Five counterparties that handled the largest volumes of AP3's fixed income trading in 2018

- Danske Bank
- Goldman Sachs
- JP Morgan
- Nordea
- SEB

Allocation of fund capital between internal and external management mandates at 31 Dec 2018

Mandate	Market value, SEK m	Share of fund capital, %
External discretionary mandates		
<i>Equity mandates</i>		
<i>Passive mandates</i>		
BlackRock Investment Management	Europe – Small cap	1,408
BlackRock Investment Management	Japan	5,982
BlackRock Investment Management	Asia-Pacific	4,979
BlackRock Investment Management	North America – Mid cap	5,675
<i>Enhanced mandates</i>		
BlackRock Investment Management	North America – Large cap	21,364
BlackRock Investment Management	North America – Small cap	2,345
		41,753
		12%

Fund investments*Listed assets*

Equity funds	18,981
Fixed income funds	2,927
Absolute return strategies and hedge funds	3,978

Unlisted assets

Private equity funds	13,085
Infrastructure funds	3,741
Real estate funds	461
Timberland funds	5,330

48,504 **14%****Internal management mandates**

Listed shares and investments	71,573
Fixed income and credits	118,047
Insurance-related risk	5,273
Unlisted holdings in real estate companies	52,828

247,721 **73%****Other assets and liabilities¹****2,689** **1%****Total fund capital****340,668** **100%**

1) Consist primarily of cash and currency hedges.

GRI reporting

AP3 has a long-standing commitment to exercise environmental and social governance in our investing activities. Responsible investment is an integral part of our mission and we incorporate ESG in our investment analysis, corporate stewardship and engagement in the AP funds' Council on Ethics. We also report annually on our performance in this area in the AP3 corporate stewardship report and the Council on Ethics annual report.

Stakeholder engagement

In November 2017 AP3 hosted a workshop with representatives of the AP funds' most important stakeholder groups. The event was attended by 60 representatives from: the AP funds' principal (the Ministry of Finance and Parliamentary Pensions Group); beneficiaries; the community; industry colleagues; suppliers; employees; and investees. The aim of the workshop was to identify stakeholders' expectations and priorities; to get feedback on the funds' sustainability engagements and to hear stakeholders' views on sustainability activities going forward.

All stakeholder groups agreed that the top priority was how the AP funds act in their investment and fund management operations because their impact is primarily felt in this area. Long-term sustainable returns were seen as an overarching target and not as a specific sustainability goal. The stakeholders noted that the choice of focus areas for sustainability engagements varied according to the companies and funds that the AP funds invest in. However three core priorities were identified:

- indirect environmental impact
- indirect climate impact
- human rights

A number of participants regarded an ethics-based approach as a prerequisite for the funds' business activities. Regulatory compliance was also seen as a key priority. Other significant areas identified were a sustainable supply chain, diversity, equality and anti-corruption.

About our sustainability reporting

The 2018 sustainability report was prepared in conformity with the Global Reporting Initiative's (GRI) Core Standards and Financial Services Supplement (FS). The report applies the 2016 GRI standards. The report covers AP3's operating activities to the same degree as in the financial statements and with no limitations. Reporting indicators were selected on the basis of the requirements and expectations of AP3's stakeholders and the Fund's own priorities, thus establishing a common view with regards to materiality. Some of the reported GRI indicators are incomplete. Going forward, we intend to develop further our disclosures, data and procedures in relation to sustainability reporting. This GRI report has not been reviewed by a third party.

The GRI index below shows where GRI disclosures can be found in the AP3 annual report 2018 (AR) and the AP3 website.

Disclosure		Page number/reference
Organisational profile		
102-1	Name of the organisation	AR p 2
102-2	Activities, brands, products and services	AP3 does not sell products or services but manages pension capital on behalf of the national income pension system.
102-3	Location of organisation's headquarters	Stockholm
102-4	Location of operations	AP3's sole office is in Stockholm. The Fund invests globally.
102-5	Ownership and legal form	AR p 40
102-6	Markets served	AR p 4-5
102-7	Scale of organisation	AR p 60
102-8	Information on employees and other workers	AR p 60-61
102-9	Supply chain	AR p 16, 61
102-10	Significant changes to the organisation and its supply chain	No significant changes occurred in 2018.
102-11	Precautionary Principle or approach	AR p 34, 35
102-12	External initiatives on sustainability to which the organisation subscribes or which it endorses	AR p 34
102-13	Memberships of associations	AR p 33, 34
Strategy		
102-14	Statement from senior decision-maker	AR p 6-7
Ethics and integrity		
102-16	Valuations, principles, standards and norms of behaviour	AR p 15, 36
Governance		
102-18	Governance structure	AR p 40-43
Stakeholder engagement		
102-40	List of stakeholder groups	AR p 74
102-41	Collective bargaining agreements	AR p 61
102-42	Identifying and selecting stakeholders	AR p 74
102-43	Approach to stakeholder engagement	AR p 74
102-44	Key topics and concerns raised	AR p 74

Disclosure	Page number/reference		
Reporting practice			
102-45 Entities in the financial statements	AR p 74		
102-46 Defining report content and topic boundaries	AR p 58-59		
102-47 List of material topics	AR p 75-76		
102-48 Restatements of information	No changes		
102-49 Restatements of information	No changes		
102-50 Reporting period	1/1-31/12 2018		
102-51 Date of most recent report	February 2018.		
102-52 Reporting cycle	Annual.		
102-53 Contact point for questions regarding the report	AR p 2 and info@ap3.se		
102-54 Claims of reporting in accordance with the GRI standards	AR p 74		
102-55 GRI content index	AR p 74-76		
102-56 External assurance	AR p 74		
Indicator			
GRI 201: Economic performance			
Sustainability management approach	103-1, 2, 3	Explanation of the materiality of the topic, the management approach and evaluation of the management approach.	AR p 8-11
Economic performance	201-1	Economic value generated and distributed	AR p 56
GRI 205: Anti-corruption			
Sustainability management approach	103-1, 2, 3	Explanation of the materiality of the topic, the management approach and evaluation of the management approach.	AR p 32-34
Anti-corruption	205-3	Korruptionsincidenter	No incidents of corruption occurred during in 2018.
GRI 302: Energy			
Sustainability management approach	103-1, 2, 3	Explanation of the materiality of the topic, the management approach and evaluation of the management approach.	AR p 26, 29, 35, www.ap3.se/ansvarstagande/ap3s-miljopaverkan/
Energy	302-1	Energy consumption within the organisation	www.ap3.se/ansvarstagande/ap3s-miljopaverkan/
GRI 305: Emissions			
Sustainability management approach	103-1, 2, 3	Förklaring till varför frågan är väsentlig, hur organisationen hanterar den samt hur organisationen utvärderar hanteringen.	AR p 18-19, www.ap3.se/ansvarstagande/ap3s-miljopaverkan/
Emissions	305-1	Direct greenhouse gas emissions	AR p 19
	305-2	Indirect greenhouse gas emissions	AR p 19
GRI 306: Effluents and waste			
Sustainability management approach	103-1, 2, 3	Explanation of the materiality of the topic, the management approach and evaluation of the management approach.	
Waste and effluents	306-2	Waste by type and disposal method	www.ap3.se/ansvarstagande/ap3s-miljopaverkan/
GRI 401: Employment			
Sustainability management approach	103-1, 2, 3	Explanation of the materiality of the topic, the management approach and evaluation of the management approach.	AR p 36, 61
Employment	401-2	Benefits provided to full-time employees	AR p 61
GRI 403: Occupational health and safety			
Sustainability management approach	103-1, 2, 3	Explanation of the materiality of the topic, the management approach and evaluation of the management approach.	AR p 36, 61
Occupational health and safety	403-2	Types of injury and rates of injury, occupational diseases, lost days and absenteeism, and number of work-related fatalities.	AR p 61. No work-related injuries or accidents occurred during the year.

GRI reporting

Indicator			Page number/reference
GRI 404: Training and education			
Sustainability management approach	103-1, 2, 3	Explanation of the materiality of the topic, the management approach and evaluation of the management approach.	AR p 36-37
Training and education	404-3	Evaluation and monitoring	AR p 36
GRI 405: Diversity and equal opportunity			
Sustainability management approach	103-1, 2, 3	Explanation of the materiality of the topic, the management approach and evaluation of the management approach.	AR p 32-33, 36-37
Diversity and equal opportunity	405-1	Diversity of governance bodies	AR p 44-45, 60
GRI 406: Non-discrimination			
Sustainability management approach	103-1, 2, 3	Explanation of the materiality of the topic, the management approach and evaluation of the management approach.	ÅR s.32-33, 36-37. Fonden har en intern policy. Diskriminering är inte tillåtet.
Non-discrimination	406-1	Incidents of discrimination and corrective actions taken	No cases of discrimination were reported during the year.
GRI 407: Freedom of association and collective bargaining			
Sustainability management approach	103-1, 2, 3	Explanation of the materiality of the topic, the management approach and evaluation of the management approach.	AR p 36-37, 60-61
Freedom of association and collective bargaining	407-1	The right to freedom of association and collective bargaining	AR p 61
GRI 408: Child labour			
Sustainability management approach	103-1, 2, 3	Explanation of the materiality of the topic, the management approach and evaluation of the management approach.	AR p 32-35
Child labour	408-1	Operations and suppliers at significant risk for incidents of forced or compulsory labour	AR p 32-35
GRI 412: Human rights assessment			
Sustainability management approach	103-1, 2, 3	Explanation of the materiality of the topic, the management approach and evaluation of the management approach.	AR p 32-35
Human rights	412-3	Investment decisions that include demands relating to human rights	AR p 32-35
GRI FS: Product portfolio			
Product portfolio	FS6	Percentage of the portfolio by specific region, size and by sector	AR p 5, 16
GRI FS: Active ownership			
GRI FS: Active ownership	FS10	Companies with which the institution has interacted environmental or social issues	AR p 32-35
	FS11	Percentage of assets subject to positive and negative environmental or social screening	AR p 32-35

Glossary, financial terminology and measures of risk and return

Absolute return

The actual return, in cash or percentage terms, that a portfolio generates over a specific period.

Active management

Form of management based on taking active positions to achieve higher returns than the benchmark index. Active positions are taken by being overweight or underweight in assets relative to the benchmark index or reference portfolio based on the projected market outlook.

Age cohort neutrality

The management of pension capital may not benefit any single age cohort at the expense of another. All age cohorts must be treated equally.

ALM

Asset liability management analysis undertaken to establish an optimal strategic portfolio structure that best corresponds to the Fund's role in the pension system.

Alternative investments

In AP3's case, alternative investments consist of private equity funds, real estate, infrastructure assets, timberland and insurance-related risk.

Asset management cost ratio

Asset management costs in relation to average fund capital.

Automatic balancing

Method of restoring the financial balance between pension system assets and liabilities when the balance figure falls below 1. Another way of putting it is that a "brake" is applied to pensions and pension credits which results in them following a balance index rather than the income index.

Balance figure

Total pension system assets (excluding premium pensions) divided by liabilities. If the balance figure drops below 1, the automatic balancing mechanism is activated. This affects pension indexing.

Benchmark index

Used to evaluate the return on a portfolio. Usually takes the form of a standardised market index and is also known as the reference index.

Brake

The pension system's automatic balancing mechanism, which ensures that disbursed pensions over time do not exceed pension system assets and hence guarantees there is enough money in the system.

Buffer funds

A description of AP1, AP2, AP3, AP4 and AP6 and their role in evening out temporary variations between pension contributions and disbursements and assisting in the long-term financing of the pension system.

Buyout

Acquisition of a controlling interest in a mature company.

CDS

Credit default swap. See credit swap.

Clearing

All activities that take place after a transaction is completed in a market place and prior to settlement. Includes reporting, risk measurement and netting.

Clearing house

An institution with regulatory approval to conduct clearing operations. Most countries only have one or very few. In Sweden, clearing is via the Stockholm stock exchange, which acts as the counterparty for all derivatives traded on the exchange.

CLS

Bank owned by currency market counterparties and used in most currency transactions for effective settlement.

Code of conduct

A group-wide framework of rules and systems to manage environmental and social affairs.

Contribution to return

Describes the proportion of total return generated by a specific portfolio or investment decision. Is usually measured in percentage points. The sum of all contributions to return corresponds to total return in percent.

Credit bond

Bond that carries higher investment risk than a government bond.

Credit spread

The difference in price between bonds with the same maturity but different credit ratings.

Credit swap

Derivative contract between two parties, A and B, in which A pays B an interest premium for a specific period of time. B only pays a premium to A in the event that a predefined asset-related event occurs. The size of this premium is the difference between the nominal underlying value of the derivative contract and the market value of the asset in question (credit default swap).

CSA agreement

Annex to an ISDA agreement that regulates how an entity with an outstanding debt (unrealised loss) must provide collateral in the form of cash or securities.

Currency exposure

Describes the proportion of the portfolio that consists of assets denominated in currencies other than the Swedish krona and where currency risk has not been neutralised by hedging.

Derivatives

Financial instrument whose price is determined by underlying value. Options, forwards and swaps are generally classed as derivatives. The value of a derivative depends on changes in the underlying value of the instrument).

Discretionary mandate

An asset management mandate that is limited in scope and specifies the terms under which fund manager makes investment decisions.

Duration

Used as a measure of interest rate risk and is expressed as the average fixed interest period. It can be used to estimate changes in value based on assumed changes in interest rates.

Forward

A contract in which counterparties undertake to buy or sell an underlying asset at a predetermined price and at a prearranged moment in time. Examples include currency forwards, interest rate forwards, forward rate agreements (FRAs) and equity index forwards. The contracts are also known as futures.

FSC

The Forest Stewardship Council is an organisation that promotes environmentally and socially responsible forest management.

Global Estate Sustainability Benchmark

The GRESB measures and evaluates sustainability in real estate companies from an investor perspective.

Global Reporting Initiative

The GRI issues guidelines for structured and comparable sustainability reporting by companies and organisations.

Green Bond Principles

Guidelines stating that green bonds or loans must be used to finance climate-smart and organically sustainable solutions, such as renewable energy, energy efficiency and clean transport. Projects that receive green bond finance must be monitored and their progress reported to the issuers.

Government bonds

Bonds issued by the government of a national state. Are used to finance medium- and long-term borrowing.

Hedging

Neutralisation of currency risk, that is, the risk of investing in currencies other than the Swedish krona.

Illiquid assets

Assets that are not listed in a competitively priced market and are the opposite of liquid assets.

Income index

Key metric that measures average annual income growth in Sweden. Is used to track pension growth provided that automatic balancing has not been activated.

Inflation-indexed bonds

Fixed income securities that give protection against inflation. They yield a fixed rate of interest and also include a payment to compensate for inflation.

Glossary

Information ratio

Efficiency measurement for active management. Indicates how much AP3 earns from active risk-taking and from deviating from the strategic portfolio or index. Is measured as active return divided by active risk (tracking error).

Insurance-related bonds

Bonds whose return is or can be connected to exposure to disasters such as hurricanes and earthquakes.

Investment grade

Bonds which have a credit rating of BBB or higher. They are associated generally with low credit risk.

IPEV

The International Private Equity and Venture Capital Valuation Board is an international organisation for private equity and venture capital firms. It issues valuation guidelines based on IFRS and US GAAP, which are regarded industry standards.

ISDA agreement

Bilateral agreement between two OTC counterparties that regulates the events that could be expected to occur between them.

Liquid assets

See illiquid assets.

LSP

The long-term static portfolio is a zero-cost portfolio against which AP3 benchmarks its asset management. Its portfolio is a 50:50 mix of listed equities and fixed income instruments comprising Swedish (25%) and global indices (75%) that are weighted as follows: equities (50%) and fixed income (50%). Currency exposure is 20%.

National Pension Insurance Funds Act

Government statute (2000:192) that established and regulates the AP funds. The act was passed by Parliament in 2000 as part of a five-party agreement to introduce a new income pension system.

Operating risk

The risk arising from the possibility of errors or breakdowns in ordinary operating activities and which can lead to financial loss or undermine public trust.

Option

Entitles the holder to buy or sell an underlying asset at a predefined price and moment in time. The option issuer has equivalent obligations. Options may include currency options, interest rate options and share options.

OTC

Short for over the counter. Refers to contracts agreed and settled between two counterparties without the involvement of a clearing house.

Passive management

Asset management that invests capital in accordance with a benchmark index or portfolio to achieve the same return as the benchmark or portfolio. Is also known as index management.

Principles for Responsible Investment

The PRI is an international network of investors that promotes the implementation of six principles for responsible investment.

Private equity

Collective term for shares that are not listed on an official or public market.

Quantitative models

Use statistical and mathematical methods to study structured data, meaning data that can be quantified in categories or figures.

Rating

Measure of credit worthiness that reflects the probability of a counterparty being able to honour its commitments. The rating may relate to the counterparty itself or to a series of securities issued by the counterparty.

Real return

Nominal return adjusted for inflation.

Realised volatility

Measures how historical returns can vary.

Reference portfolio

A portfolio of different assets whose composition is designed to facilitate comparisons.

Reference portfolio

Consists solely of listed equities and bonds.

Risk-adjusted return

A means of evaluating management performance in which active return is considered in relation to the level of risk in the portfolio. The Sharpe and information ratios are two examples.

Risk capital

Generally refers to investments in a company's equity. Relates in practice to investments in entities that are not listed on a market, that is, private equity.

Risk premium

The additional return that can be generated by an investment exposed to a specific risk.

SDGs

The UN Sustainable Development Goals.

Sharpe ratio

Measurement of a portfolio's risk-adjusted return, that is, the efficiency of the portfolio. It equates to portfolio return minus risk-free interest divided by the standard deviation of portfolio return.

Stop loss

A predetermined level of cumulative losses over a specific period of time resulting in the immediate closure of all positions.

Swap

Contract in which counterparties agree to exchange flows based on an underlying asset and under prearranged terms and conditions. Often runs for periods of more than 12 months. Examples include interest rate swaps, currency swaps and total return swaps.

Tracking error

A measure of the variation in active return and is calculated as the standard deviation of active return. Historic (ex post) tracking error describes the variation in realised active return and thus measures risk levels retroactively. Expected (ex ante) tracking error is a forecast.

Value at Risk (VaR)

A common measurement of the maximum loss that a portfolio can sustain for a given period and with a certain level of confidence. VaR is calculated daily for a period of one day and with a confidence level of 95%. Portfolio management often requires changes to the structure of the portfolio to keep this risk of loss at an acceptable level.

Volatility

A measure of the variation in return. Is measured as the standard deviation of return.

Measures of risk and return

Absolute return (r_p)

Portfolio return.

Absolute risk or volatility (σ_p)

Standard deviation of portfolio divided by active risk.

Information ratio (risk-adjusted active return)

Active return divided by active risk = $\frac{r_p - r_f}{\sigma_p}$

Sharpekvot (riskjusterad avkastning)

Portfolio return minus risk-free return divided by absolute risk = $\frac{r_p - r_f}{\sigma_p}$

Sweden's pension system capital

SEK 13,600 billion

The chart shows the relative size of different parts of the Swedish pension system. It covers the general state pension as well as different forms of occupational and private pension plans. The system has total assets of more than SEK 13,600 billion. Data are based on the Swedish Pensions Agency's Orange Report 2017.

