



Annual Report 2019

AP3 Tredje AP-fonden

ASSET MANAGEMENT ACROSS GENERATIONS

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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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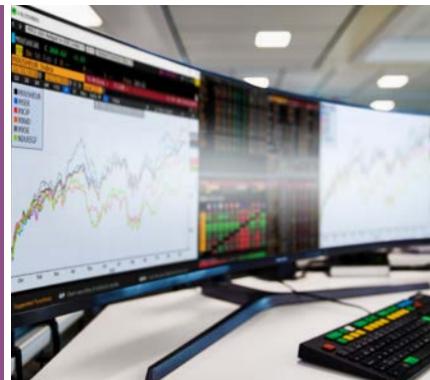


Kerstin Hessius, CEO:
AP3 reported historically strong results in 2019. I am pleased with the new investment rules, which enhance our flexibility. AP3 focused on making further progress in sustainability and on reducing organisational complexity.

pp. 6-7

The portfolio performed strongly in 2019 and all investment categories generated positive returns. We analysed climate risks and set new sustainability goals. Read more about AP3's investment model and how the Fund integrates sustainability throughout its operations

pp. 4-39



New Parliament-approved investment rules seek to strengthen the AP funds' long-term investment capital. The rules allow the funds to invest more extensively in unlisted assets and require them to integrate sustainability throughout their internal processes.

pp. 12-13

Third Swedish National Pension Fund Annual Report 2019

This annual report describes AP3's operating activities in 2019. The Fund publishes a separate Stewardship Report each autumn. AP3's reporting conforms to the GRI Standards of the Global Reporting Initiative. Under the GRI, the Fund reports at "core" level and in conformity with "financial services" sector requirements. The GRI Index is presented on pages 76-77. See also etikradet.se, the website of the Swedish National Pension Funds' Council on Ethics.

highlights

Results in 2019

- Net result of SEK 59.5 billion (2.2).
- Total return of 17.7% (0.7) before expenses and 17.6% (0.6) after expenses.
- Payments to the pension system totalling SEK 6,520 million (6,773) in 2019.
- Fund capital of SEK 393,696 million (340,668), an increase of SEK 53,029 million from the prior year.
- Asset management cost ratio of 0.09% (0.09), of which operating expenses were 0.06% (0.06).
- Average annual return after expenses for the last five and ten years stands at 8.5% and 8.7% respectively. Since inception in 2001, AP3 has delivered an average annual return of 6.2%.

59.5
SEK bn

Net result for 2019

17.6
percent

Total return after expenses

393.7
SEK bn

Fund capital at 31 Dec

8.7
percent

Annual average return after expenses in last 10 years

Key figures

	2019	2018	2017	2016	2015
Fund capital at 31 Dec, SEK bn	393.7	340.7	345.2	324.4	303.0
Net payments to pension system, SEK bn	6.5	6.8	7.4	6.6	4.9
Net result, SEK bn	59.5	2.2	28.2	28.0	19.6
Return before expenses, %	17.7	0.7	8.9	9.5	6.9
Return after expenses, %	17.6	0.6	8.8	9.4	6.8
Management expense ratio, %	0.09	0.09	0.10	0.12	0.12
Management expense ratio excluding commission costs, %	0.06	0.06	0.06	0.06	0.06



Strong recovery in the financial markets

AP3 achieved one of its highest annual returns in 2019 as market expectations of a poor year proved unfounded. The tighter monetary policy seen in 2018 and the ongoing trade conflict between the United States and China both had an economic impact, but central banks moved swiftly to implement counter-measures. These actions prompted a rally in financial assets during the year. Towards year-end, markets rallied as uncertainty eased over the trade war and Brexit.

Strong and broad portfolio

The total return of 17.7% before expenses was the second-highest in the Fund's 19-year history and reflected positive performance across all investment categories and a 27% return on the equity portfolio. AP3's portfolio of wholly and partly owned real estate companies also performed strongly thanks to lower interest rates and high demand for modern, eco-efficient properties. The Fund's active management strategies in equities, fixed income, currencies and hedge funds enjoyed a good year, while the depreciation of the Swedish krona raised the value of AP3's foreign currency assets.

Market turns from despair to hope

Global equity markets performed strongly as the anticipated economic slowdown failed to materialise. Weakness in the credit market in 2018 was comprehensively reversed in the early part of 2019 as it

became clear that central banks would act to head off a slowdown. A combination of looser monetary policy and higher-than-expected economic growth lifted the financial markets, while corporate earnings largely exceeded analysts' expectations.

Long-term strategy pays off

The underlying factors that drove market sentiment and economic developments during the year were hard to ascertain. The global industrial outlook remained uncertain amid lingering concern over the US-China trade conflict, Brexit, and a realignment of the global car market. Sentiment was strongly negative at the start of the year following a sharp fall in the equity market in the latter part of 2018 that pushed the valuations of equities and credits to comparatively low levels. AP3 therefore retained its weights in these investment categories during the year, only reducing them gradually as they rebounded in value.

Market focus on climate change

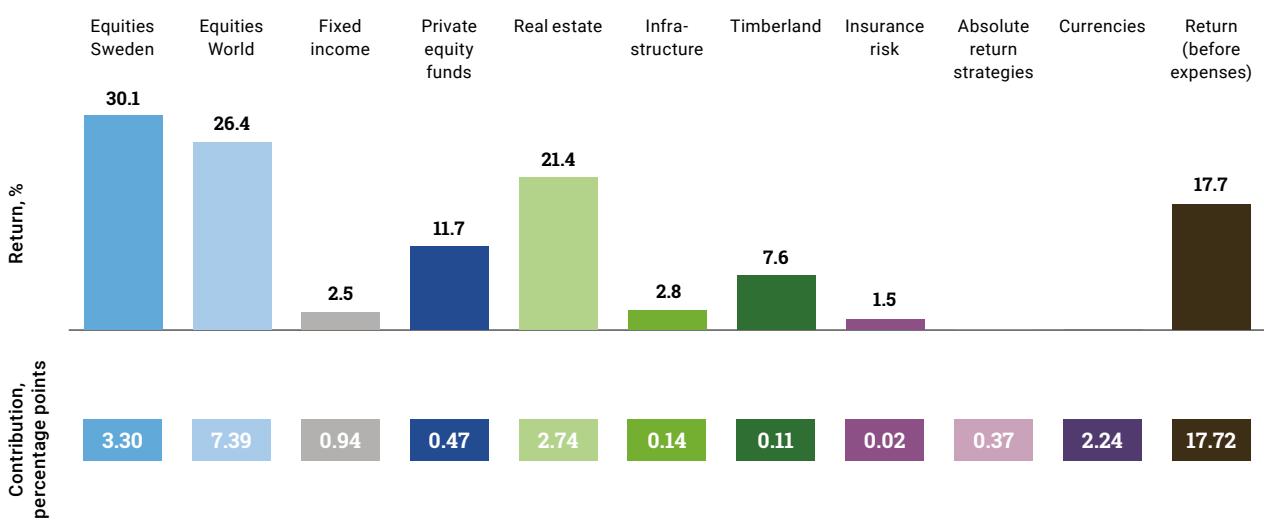
Climate change continued to rise up the political and investment agenda. Just as the US announced its withdrawal from the Paris climate agreement, Time Magazine chose Greta Thunberg as its person of the year. Spurred by the European Commission, EU leaders launched a Green Deal for Europe aimed at making the continent climate-neutral by 2050.

Investors focused their attention on understanding and planning for the EU's forthcoming regulations on sustainable finance. The regulations will include extended standards for green bonds and a taxonomy, or classification, of activities that are considered to be sustainable. These factors clearly governed the flow of capital in 2019 and had a strong impact on sectors and individual companies. A prime example was energy, which was the weakest-performing sector during the year in spite of higher oil prices.

Strong contributions from equities and real estate

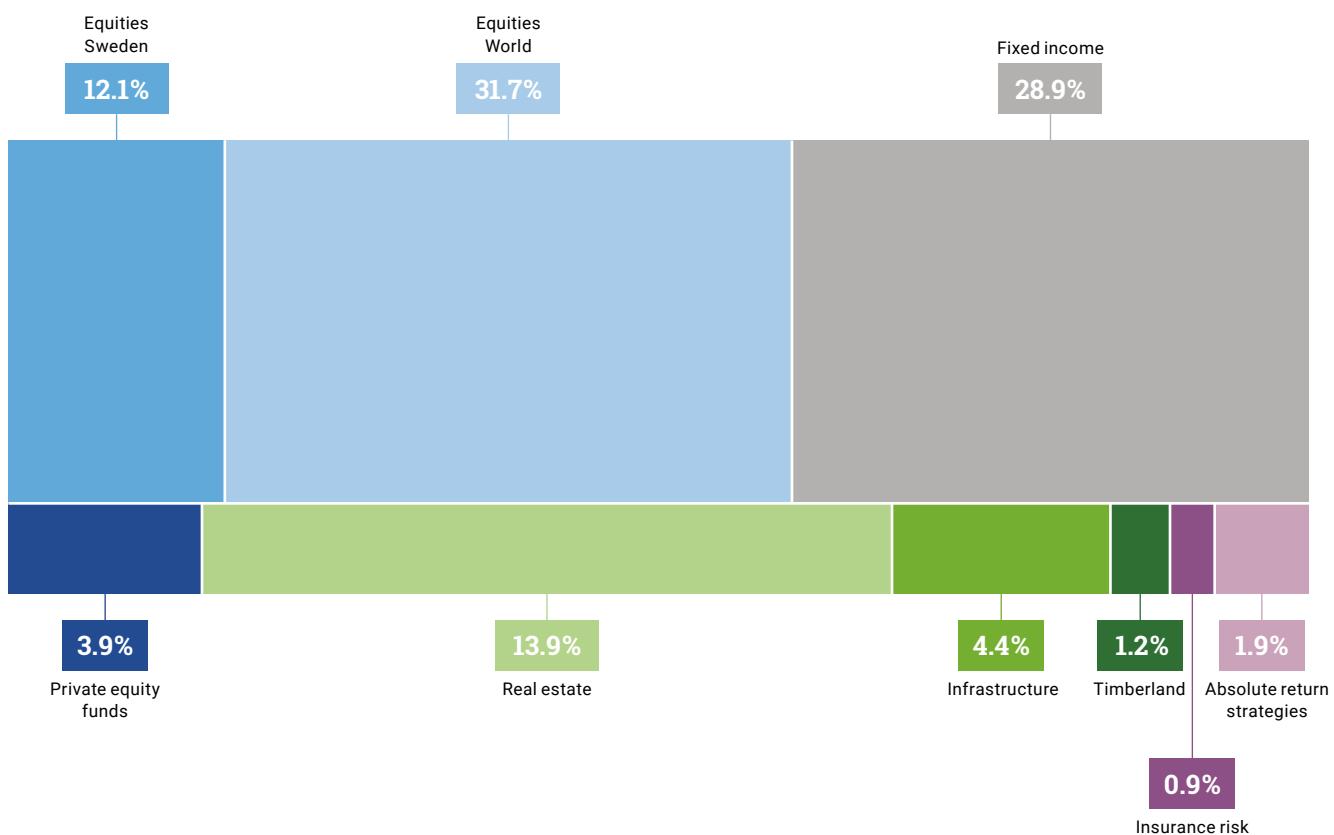
Return and contribution to total portfolio

(Currency hedged. For currencies and absolute return strategies, only contribution to total portfolio return is shown.)



AP3 portfolio structure by market exposure at 31 Dec 2019

Total net exposure shown for absolute return strategies.



Kerstin Hessius: AP3's best result this decade

For AP3, 2019 was one of the best years ever. The net result of SEK 59.5 billion corresponds to a 17.6% return after expenses, with all investment categories making a positive contribution.

The year began with a high degree of uncertainty after a weak final quarter of 2018 cast a cloud over prospects for the next 12 months. In the event, the US Federal Reserve quickly signalled its intention to cease raising interest rates, and within a few months it had become clear that the current round of monetary tightening had ended. Financial markets breathed a sigh of relief and asset prices went on to increase relatively smoothly through the rest of the year. The AP3 portfolio also benefited from a strong development in Swedish real estate prices and a weak krona. Overall, the equity portfolio was the single largest contributor to portfolio returns.

Strong contribution to the pension system

We have now said goodbye to the 2010s, a decade in which we recorded an annual average return of 8.7%. Our experience from those 10 years is that risk taking really does bring rewards. It is interesting to recall

that the decade began with a debate about whether equity investments could be expected to yield higher returns than risk-free long-term bonds. This conversation was based on experiences from the previous decade, in which equities had under-performed. The conclusion has to be that trend analysis of this sort has its weaknesses.

At the start of the 2010s, the AP funds' investment returns were in the spotlight for failing to keep pace with the income index during the prior decade, which meant that the funds were not contributing positively to the long-term financing of the pension system. Questions were being asked about the pension system reform that had created the AP funds. In hindsight, it is clear that the issue was less about the AP funds' risk levels or the pension system reform than about the economic reality. The active monetary stimulus measures applied by central banks internationally have lifted both the world economy and the value of financial assets.

New rules well timed

The review of the AP funds' investment rules, for which the funds had long lobbied, is now complete. The first round of changes, which took effect in 2019, increase the funds' scope to diversify their portfolios and give core priority to sustainability. At AP3, implementation focused on our operating frameworks as well as investment activities. The abolition of the 5% ceiling for private equity fund investments had the most tangible impact from a portfolio perspective. We succeeded in increasing our holdings of investment commitments in which we wanted greater exposure. This was probably because AP3 now is seen as a more credible long-term partner than we were under the previous restrictions.

Climate change ever more important

The sustainability perspective is more and more evident in our focus at the same

time as climate change has become more important. During the spring we performed our first scenario-based analysis of total portfolio risk measured against the 2°C target. Analysing and monitoring portfolio climate risks has enabled us to influence investee companies as well as to adjust our portfolio holdings to mitigate risk in this area.

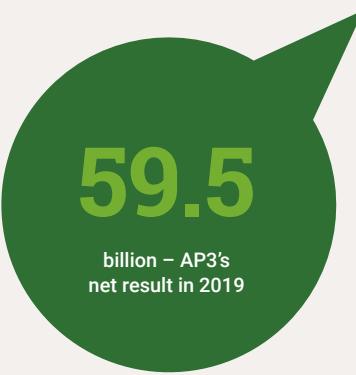
We adopted new portfolio climate goals for 2019 to 2025. These include reducing carbon footprint, ensuring our real estate companies show climate leadership, and actively investing in green bonds and other sustainable investments. Efforts to integrate sustainability throughout the investment process are ongoing. A great deal of progress has been made but conditions are constantly changing, which means we must be agile and keep moving forward.

Reducing complexity in asset management

During the year we recruited a new chief investment officer and performed a comprehensive review of the Fund's portfolio structure and organisation. The last such review was 10 years ago and focused on managing portfolio risk and clarifying how the Fund earns its investment returns. Today we operate in a more complex world with stricter regulatory frameworks. Hence, our ambition this time is to simplify and clarify the asset management organisation. The new portfolio structure was implemented at the turn of the year. The changes in the asset management organisation will take effect at the end of Q1 2020.

Reduction in return target

AP3 performed an asset liability modelling analysis during the year which found our total portfolio risk to be at an appropriate level in the context of our role within the Swedish pension system. However, projected investment returns are lower today than when the 4% real return target over time



59.5

billion – AP3's net result in 2019

was set in 2005. The big change since then is that long-term interest rates have more than halved and are expected to remain low for the foreseeable future. The low-interest-rate environment is partly offset by our new investment rules, which create a little more scope for portfolio diversification. During the year the board of directors conducted a full review and decided to reduce the long-term real return target to 3.5% as of 2020.

Major challenges ahead

Now we leave ten successful years behind us, and as we enter a new decade the financial markets will need to evaluate and price a wide range of risks. Demographic changes mean that future growth is projected to be slower. In political circles, we are witnessing a shift from diplomacy to threats and sanctions, while the growing protectionist tide is putting a brake on globalisation.

Compliance risk has emerged as a key factor in the wake of the 2008 financial crisis. And while monetary policy has kept the global economy on course, central banks have largely used up the means at their disposal. In the meantime, climate risk is growing – and the changes required to tackle it pose stiff challenges. It is against this backdrop of uncertainty that AP3 is working to generate sustainable value over time for Sweden's current and future pensioners.

We have been successful so far thanks to the skills of our employees and their dedication to getting the job done. The standards set by the board and the support it gives us in our work are other vital assets. We proudly leave the 2010s behind and look forward to managing our fund capital responsibly in a challenging world.

Kerstin Hessius
CEO



AP3 will invest actively in green bonds and our real estate companies will be sector leaders in the transition to a sustainable future.

The AP funds in Sweden's pension system

Sweden operates a public pension system that covers everyone who works and pays tax. The system is funded by pension contributions paid in by employers and employees. The public pension system's assets represent more than 75% of Sweden's total pension assets, underlining the core role that public pensions play at national level.

AP funds provide strength and stability

AP1, AP2, AP3 and AP4 act as a capital buffer for the income pension system. A difference arises every year between paid-in contributions and paid-out pensions. The role of the AP funds' capital buffer is also to manage this gap. The AP funds also manage their assets in a way that contributes to the financial stability of the income pension system over time.

How pensions are financed

The income pension system is funded primarily by pension contributions. Sixteen percent of an individual's pensionable income is registered by the Swedish Pensions Agency as a pension credit in the individual's personal income pension system account. Hence, the individual "saves" towards his or her own pension. The total value of all the credits in personal income pension system accounts is referred to as the system's pension liabilities.

Due to demographic factors, Swedish pension contributions have been insufficient to cover paid-out pensions since 2009. This deficit is projected to persist until around 2040, and financing it is one of the main reasons for the AP funds' existence. The funds use their combined capital to fund the deficit. In 2019, for example, pension payments totalled SEK 315 billion, of which SEK 26 billion came from the AP funds.

Financial health of the income pension system

As of today, the income pension system is in robust financial health. The system's assets exceed its liabilities, giving a "balance figure" of 1.05. This solid position is largely due to the strong returns generated by the AP funds in recent years. Indeed, the funds' share of total income pension assets now stands at 15% (up from 10% when the pension system launched in 2001). The remaining 85% is comprised of future pension contributions.

Growth in pension capital

Provided that the income pension system is not in a "balancing" phase, the value of pension credits and pensions increases in step with the income index so that pensions keep pace with wage growth.

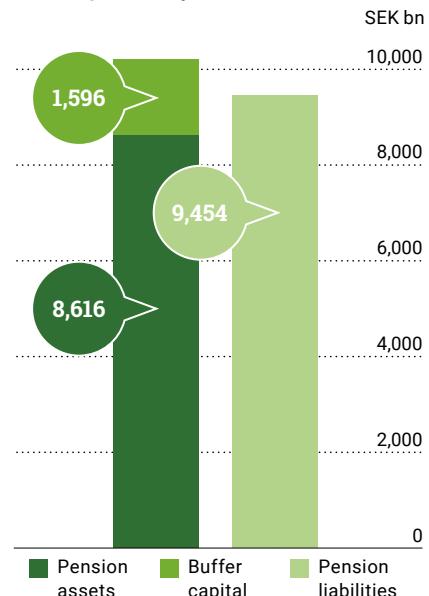
When income pension system assets fall below its liabilities and the balance figure drops below 1.0, the system enters a phase of balancing to regain financial equilibrium. During such periods, pensions and pension credits increase in step with the balance index. This rate of increase is lower than for the income index and remains so until the balance figure returns to 1.0.

Other roles for AP6 and AP7

AP6 also forms part of the capital buffer but plays no role in managing annual deficits. AP7 is part of the premium pension system

and is a fund that pension savers can choose to invest in. The premium pension system is part of the public pension system and allows savers to choose which funds to invest in. A total of 2.5% of each individual's pensionable income is assigned to the premium pension system. The growth of these fund savings depends on the investment choices made by the individual over time.

Income pension system balance sheet



Income pension system flows 2019



Paid-in pension contributions

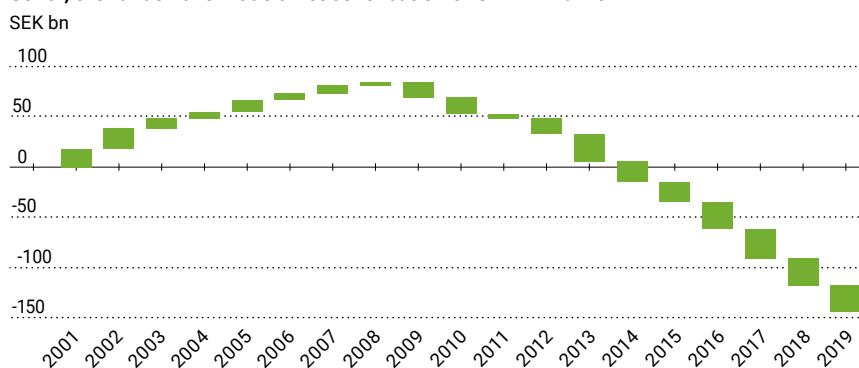
from AP1, AP2, AP3, AP4

Paid-out income pensions

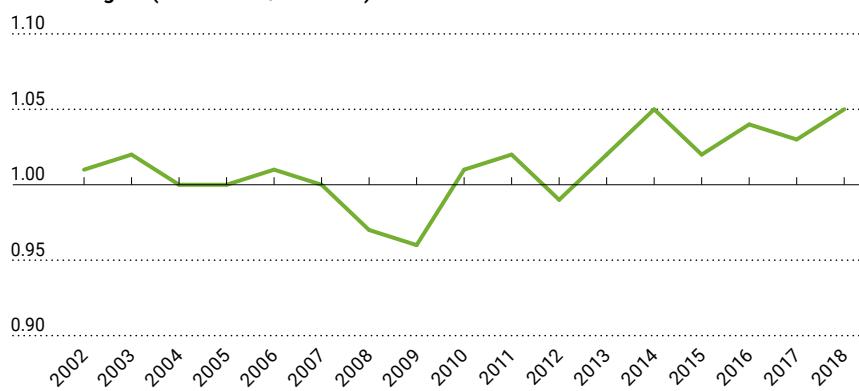
A financially strong model

Although the finer details of the income pension system's mechanisms have been gradually refined over the years, the system today functions just as it was intended to do when it was developed in the 1990s. Solid investment returns from the AP funds have strengthened the system and created a capital buffer that can now be used to finance the annual deficits between pension contributions and outgoing pensions that are projected to remain until approximately 2040.

**The AP funds finance the income pension system deficit.
So far, the funds have made a net contribution of SEK 144 billion**



Balance figure (total assets/liabilities) 2002–2018



Pension and pension credit indexing via income index and balance index 2001–2020



A model that is working as planned

The current Swedish pension model was developed in the 1990s to confront future demographic challenges. From 2001 to 2008 the system enjoyed a surplus of pension contributions over paid-out pensions and was able to build up a capital buffer, in part also thanks to strong investment returns that strengthened the system as a whole. This buffer has been deployed since 2009, when rising numbers of retirees saw the system move into annual deficit. The deficits are projected to continue for the next two decades.

Strong financial position today

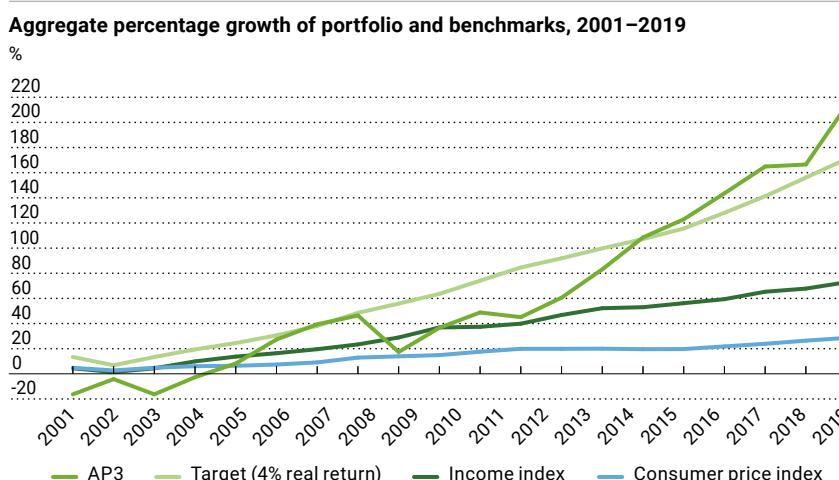
The income pension system is self-financing and falls outside the government budget. Its financial health is measured annually by comparing assets to liabilities. If the ratio between them (the balance figure) falls below 1.0 the system enters a phase of balancing to regain financial equilibrium. This occurred for the first time after 2008, prompting the start of a balancing period in 2010. The AP funds' high returns in the last decade have strengthened the pension system financially.

Impact of wage growth and balance figure on pensions

From 2001 to 2009 pensions and pension credits (income pension system liabilities) were indexed upwards in step with the income index, which tracks Swedish wage growth. When the balance figure dropped below 1.0 in 2008, the system entered a balancing phase that lasted until 2018, when the balance figure regained parity with the income index. Since 2001 the income index has risen by an annual average of 2.9%.

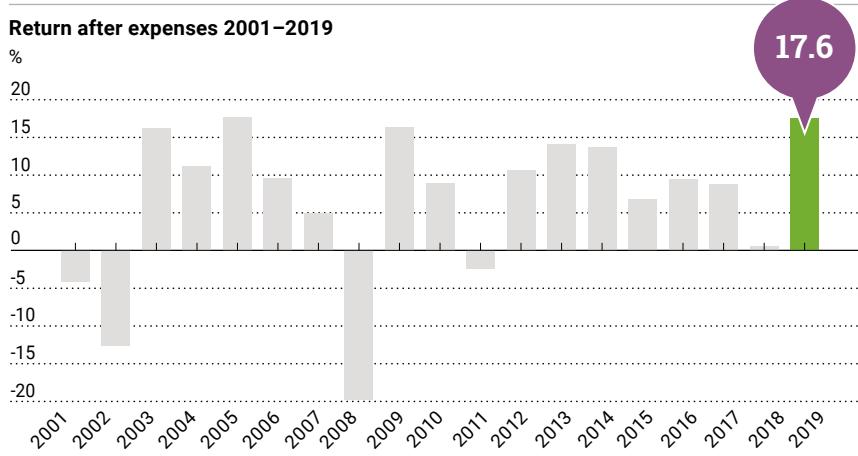
Eighth consecutive year of growth for AP3

The income pension system is currently in a long period of deficit between pension contributions and paid-out pensions that the AP funds are helping to finance. Still, AP3 has continued to grow its fund capital thanks to strong investment returns.



Performance since 2001

During its first two decades as an AP fund tasked with financing the income pension system's capital buffer, AP3 outperformed its ambitious target of a 4% average annual real return. The Fund's average annual return stands at 6.2% since inception, corresponding to a return of 4.8% after inflation. This is substantially higher than the income index, which rose by an annual average of 2.9% during the period. AP3's portfolio management has thus made a strongly positive contribution to the income pension system. During the period, annual inflation remained low at 1.3% and well below the Riksbank's target level of 2%.



17.6

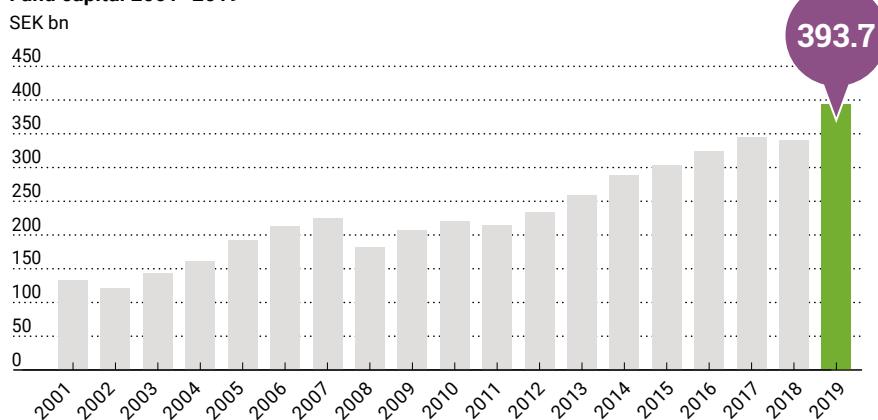
Balancing risk and return – neutrality across generations

AP3 is required to observe neutrality across generations, meaning that the needs of all age cohorts must be observed equally. This requires AP3 to strike a balance between investing in high-risk assets to achieve strong returns over time while on the other hand limiting significant drops in value in the short run. At the same time, AP3 must be able to weather the natural variations in annual returns. The value of the AP3's portfolio fell sharply in 2008 in the wake of the financial crisis, but since then returns have been high and relatively stable. Indeed, 2019 was the eighth consecutive year in which the Fund saw positive portfolio growth.

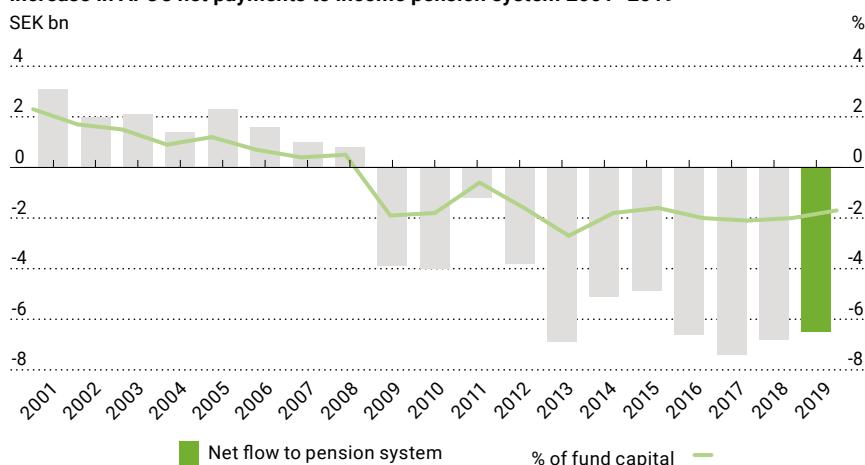


AP3's first decade was filled with challenges, and much criticism was directed at the way the system and the capital buffer were designed. Today, ten years on, there is greater understanding of AP3's role and the importance of the capital buffer to the income pension system's stability.

High returns have been in the spotlight because they have been highly beneficial for the system. Today, 10 years on, there is a growing focus on using capital to promote sustainable development. Going forward, both capital growth and climate change will pose major challenges that we will need to tackle in an optimal way.

Fund capital 2001–2019**Fund capital at record high**

AP3's positive return in 2019 lifted fund capital to a record peak of SEK 393.7 billion. The AP funds' capital buffer now represents 15.6% of the income pension system's asset base. However, fund capital can decrease even if investment returns are positive. This happened in 2018 and was because investment returns were insufficient to cover the Fund's payments to the pension system.

Increase in AP3's net payments to income pension system 2001–2019**Financing deficits in the income pension system**

In 2019 AP3 paid out SEK 6.5 billion to the income pension system. Since 2009, the Fund has paid out a total of SEK 57.2 billion to help finance the system's deficit. AP3 projects an annual deficit of between 2% and 2.5% over the coming decade, which is of the same order of magnitude as the deficit seen during the 2010s. The combination of a structural deficit and lower projected investment returns going forward means that AP3 expects the capital buffer to grow more slowly in the next decade than in the last 10 years.

57.2 SEK bn

Since 2009, the Fund has paid out a total of SEK 57.2 billion to help finance the system's deficit. The annual deficit is projected to be between 2% and 2.5% of the value of the capital buffer in the coming decade.

Growth in alternative investments under new rules

AP3's strategy of increasing its weight in alternative investments received a boost when the AP funds' new investment rules in the National Pension Insurance Funds Act took effect on 1 January 2019.

New rules, new opportunities

The new rules, effective from the start of 2019, reflect the AP funds' pivotal role as responsible investors. The National Pension Insurance Funds Act tasks the AP funds with delivering maximum value to the income pension system by generating high investment returns over time.

The change in the rules marked a structural shift in how the capital buffer can be invested. Starting in 2001, the AP funds were required to invest their wealth in listed assets and to maintain a high proportion of liquid fixed income holdings. Each fund had to invest a minimum 30% of its capital in liquid bonds with a low credit risk. The new rules have reduced this minimum level to 20% and now allow the funds to invest up to 40% of their capital in illiquid assets, meaning assets that are not market-listed. Illiquid assets include the investments that the AP funds hold today in private equity funds, real

estate companies, timberland, infrastructure and other unlisted assets.

Additional changes

The rules are expected to be revised further by Parliament in 2020, allowing the AP funds to own unlisted equity via private equity companies only. Each AP fund will be allowed to own a maximum 35% voting interest in such a company. This restriction is designed to ensure that the funds do not assume operational responsibility in unlisted companies. The latest rules will also enable the AP funds to invest in unlisted credits through an external manager and to make sidecar investments in private equity funds in which they have invested.

The rules continue to disqualify the funds from investing in commodities or commodity-based derivatives.



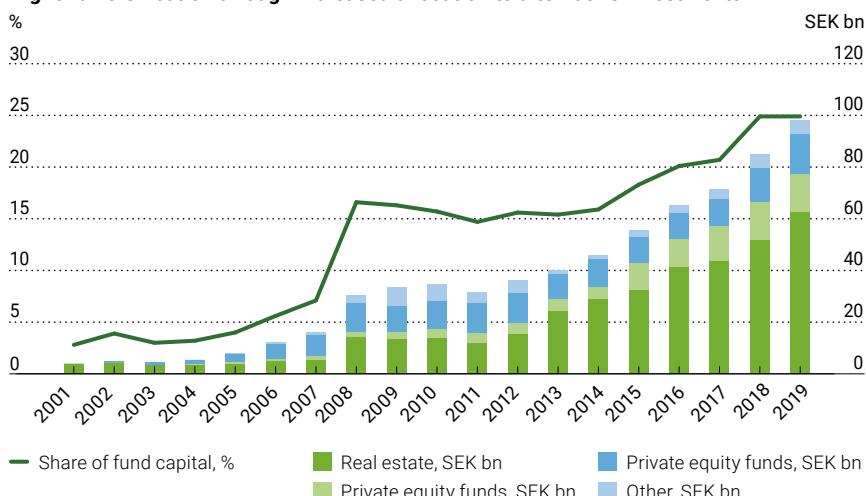
Government proposal to revise AP funds' investment rules

As of 1 January 2019, AP1, AP2, AP3 and AP4 enjoy greater scope to invest in asset categories outside the equity markets. The government is currently proposing further changes in the funds' investment rules to improve their ability to use the new framework, to drive cost efficiency, to improve future returns and to promote a sustainable approach:

- AP1, AP2, AP3 and AP4 will be permitted to make co-investments in unlisted companies if these are via private equity firms. The maximum equity investment in such firms will rise from 30% to 35%. The AP funds will not be permitted to hold operational responsibilities in private equity firms.
- The AP funds will be entitled to make co-investments in partnership with funds in which they have invested. This will allow an AP fund to invest directly in companies owned by a private equity firm that the fund has invested in. In many cases, this will provide greater exposure to the investee at lower cost.
- In the event of a stock market flotation by a real estate company or private equity firm in which an AP fund has invested, the fund may retain an equity share exceeding 10% of the voting rights.
- The AP funds will be given the opportunity to invest in unlisted bonds and other fixed income instruments provided such investments are made through a fund or private equity company.

The revised rules are expected to take effect on 1 May 2020.

Higher diversification through increased allocation to alternative investments



AP3's journey to a higher weight in alternative investments can continue thanks to changes in the National Pension Insurance Funds Act. This enables us to draw on a wider range of investments and improves our scope for promoting sustainable social development.



From good to great – sustainability in pensions law

Under new changes to the National Pension Insurance Funds (AP funds) Act, the AP funds must act responsibly when managing their assets. The new legislation stresses the value of collaboration between the AP funds in the area of sustainability – collaboration that has been ongoing for many years and has already delivered tangible results.

Stronger legal platform

The National Pension Insurance Funds Act requires AP1, AP2, AP3 and AP4 to operate a shared framework for responsible investment. This allows us to base our activities on shared values and a joint approach when it comes to what assets should be excluded from the AP funds' investment universe. We also share the same reporting standards for sustainability.

The AP funds' shared values are based on those of the Swedish government and guide our entire operating framework. This means not investing in companies that infringe United Nations conventions signed by Sweden. In reporting, the AP funds share the same guidelines in areas such as measuring carbon footprint in order to make it easier to track the performance of investee companies.

Responsible investment

The AP funds need to conduct themselves and their investing activities in such a way as to retain public trust. This means taking an approach based on facts and knowledge backed by scientific rigour.

Being a committed and responsible owner means engaging with investee companies and other investors and stakeholders and participating in national and international initiatives in support of good corporate stewardship and sustainable development.

Long-term foundation

The National Pension Insurance Funds Act sets out how it is possible to promote sustainable development without compromising the goal of high investment returns. The long-term mandate under which the AP funds operate makes sustainability a natural part of the pre-investment analysis process, thereby embedding these issues in the funds' asset management operations. AP3 has sustainability requirements for all investment mandates, both internal and external.

Climate strategy

AP3 has a climate strategy that sets investment and carbon footprint targets for 2019 to 2025. The strategy reflects the Fund's ambitions to contribute to a reduction of carbon emissions and sets out how we

intend to expand our holdings of green bonds and other sustainable investments. As an institutional owner, AP3 also works closely with the managements of our directly owned unlisted real estate companies to lead the transition to sustainability in the Swedish property market.

Pablo Bernengo, AP3 CIO:

"AP3 has long been proactively engaged in sustainability on multiple levels. Like all responsible investors at international level, AP3 has a duty to continue to move forward in this field because the challenges are constantly mounting. Our role is to invest time, effort and resources in areas where we can influence investee companies to move in a direction that is sustainable over time. This applies whether we work alone or in partnership with other investors. Most of all, we have a responsibility to deliver maximum value to the pension system by continuing to invest our capital in such a way that we make the most of the opportunities that we see ahead as the world undergoes a major transition."

Operational conditions and attributes

Operational conditions and attributes

AP3's mission and operational conditions play a core role in defining the Funds attributes. These set the foundations for our investment strategy and investment model.

AP3's asset management model has developed over the course of 20 years. It reflects our special characteristics as an investor

and is our cornerstone for conducting sustainable and successful asset management. The following section describes the

model in detail, looking at everything from investment selection to sustainability and the pivotal role of our employees.

AP3's attributes govern choice of investment model

Long-term approach in mission and strategy

AP3 has a long-term mission on behalf of the Swedish pension system that allows us to operate beyond the short and medium term with a focus on sustainability. The long-term character of this mission enables the Fund to invest in unlisted assets where value creation takes place over time. Returns can be high compared to many market-listed investments because unlisted assets are not available to all types of investor and also come with a liquidity premium.



Optimal asset base and organisation size

The AP3 asset base and organisation have a well balanced size to enable the Fund to deliver on its mission. The portfolio is large enough to enjoy advantages of scale, while organisationally the Fund benefits from short decision-making processes and a professional culture in which employees take a large degree of personal responsibility.



AAA counterpart

AP3's status as a government body, its Swedish domicile and its investment approach together make the Fund a valued partner and owner, facilitating access to attractive long-term investments worldwide. This can be especially useful in times of market uncertainty and may open up for attractive investment opportunities.

AAA

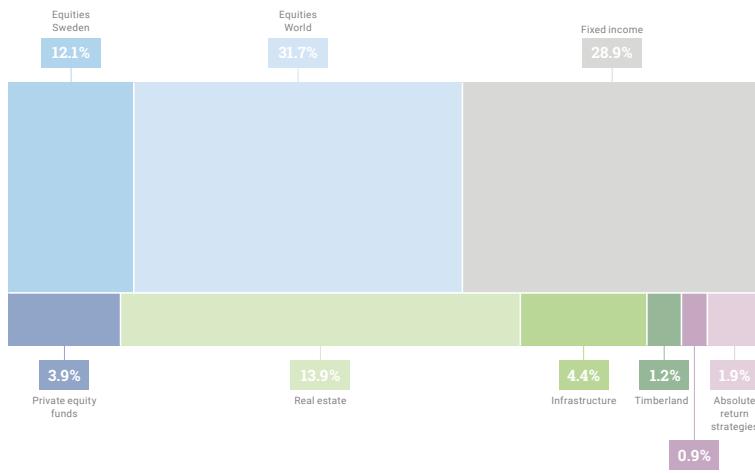


Based in Sweden

Though a global investor, AP3 is based in Sweden and has a natural focus on domestic investments. This centre of gravity has been beneficial over the course of many years and has enabled the Fund to share a Swedish perspective with global stakeholders.

Independent government body

AP3 is regulated by the National Pension Insurance Funds (AP funds) Act, which sets a solid framework for fund management. The act enables AP3 to invest flexibly and with a long-term perspective, giving an advantage over other institutions.



An overview of the AP3 portfolio is provided on the coming pages. How do AP3's attributes shape its asset management?

Read more on pages 16–39.



Foundations of the investment model

AP3 has a relatively high long-term return target that is set by the board of directors. The asset management model is geared to generating robust returns while retaining flexibility during periods of market turbulence.

Revised return target

In 2019 the board of directors decided to revise the long-term return target. The board's view was that the Fund's overall risk was well balanced but that projected returns on both low-risk and high-risk investments had fallen in the prior decade. As a result, the board reduced the long-term real return target from 4.0% to 3.5%. The decision is not expected to have any impact on AP3's investment strategy.

Achieving a high return target requires the investment model to capitalise on the potential for value creation by:

- Investing long-term in assets whose risk profiles can generate returns over time.
- Adapting portfolio risk to changing market conditions by investing across different time lines.
- Diversifying and spreading risk to create value by reducing portfolio vulnerability.
- Ensuring effective corporate governance at global level.
- Cost-effectiveness in asset management is a fundamental issue of public trust for AP3. The Fund prioritises efficient solutions and scrutinises management models, partnerships and suppliers to maximise cost-effectiveness.

To maintain a high level of ambition in these areas, AP3 has made a number of choices that reflect the Fund's key attributes and together define the investment approach.

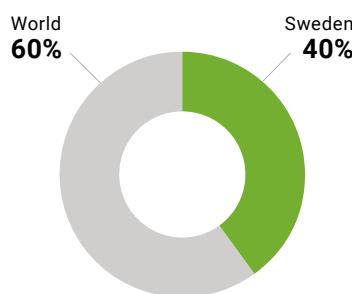
Different investment horizons – strategic and tactical asset allocation

In the long run, asset allocation – and hence total portfolio risk – is the single most important factor for AP3's investment returns. Strategic allocation is based on a long-term investment perspective in which portfolio structure is adapted to projected returns and AP3's ability to achieve them. In tactical allocation, the time frame is shorter

and the emphasis is on using 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. AP3 has a Swedish-centred network plus a tradition of building real estate companies in Sweden. This is why most investments are direct and why corporate stewardship is focused primarily on Sweden and Swedish investee companies.



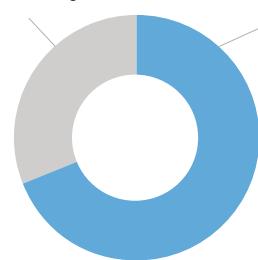
Some 40% of AP3's capital is invested in Sweden. International investments are important for diversification and value creation.

Internal management with help from global network

AP3 is governed from Stockholm, from where a 60-strong staff manages the bulk of the Fund's investments. Most investments are managed internally, an approach that ensures transparency, provides a solid understanding of events, and promotes effective governance and high cost-efficiency. To succeed, we rely on an

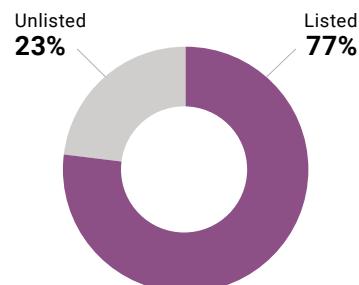
experienced team of in-house professionals to analyse and track investments. In selected areas such as emerging markets and private equity, AP3 uses external managers with specialist skills.

External management Internal management
31% 69%



Attractive counterpart and demanding investment partner

AP3's special attributes make the Fund an attractive and yet demanding partner, in Sweden and internationally. This is a strength, especially in alternative investments in private equity funds, real estate, infrastructure and timberland. These holdings are often not market-listed and are less exposed to market volatility as a result. In real estate, the Fund prefers to invest via its own companies. Building proprietary businesses is, above all, a cost-effective way to manage this type of asset. Direct ownership gives a better operational overview and makes it easier to exercise responsible governance, hence giving greater control over long-term value creation.



Global investor with Swedish focus

AP3 as a global investor

AP3 has elected not to pursue an extreme level of diversification but rather to make informed choices between different markets and investment types. Hence, the Fund looks internationally for opportunities that do not exist in Sweden or to achieve geographic diversification. One example is the United States, where the Fund has a significant portion of its investments. The US

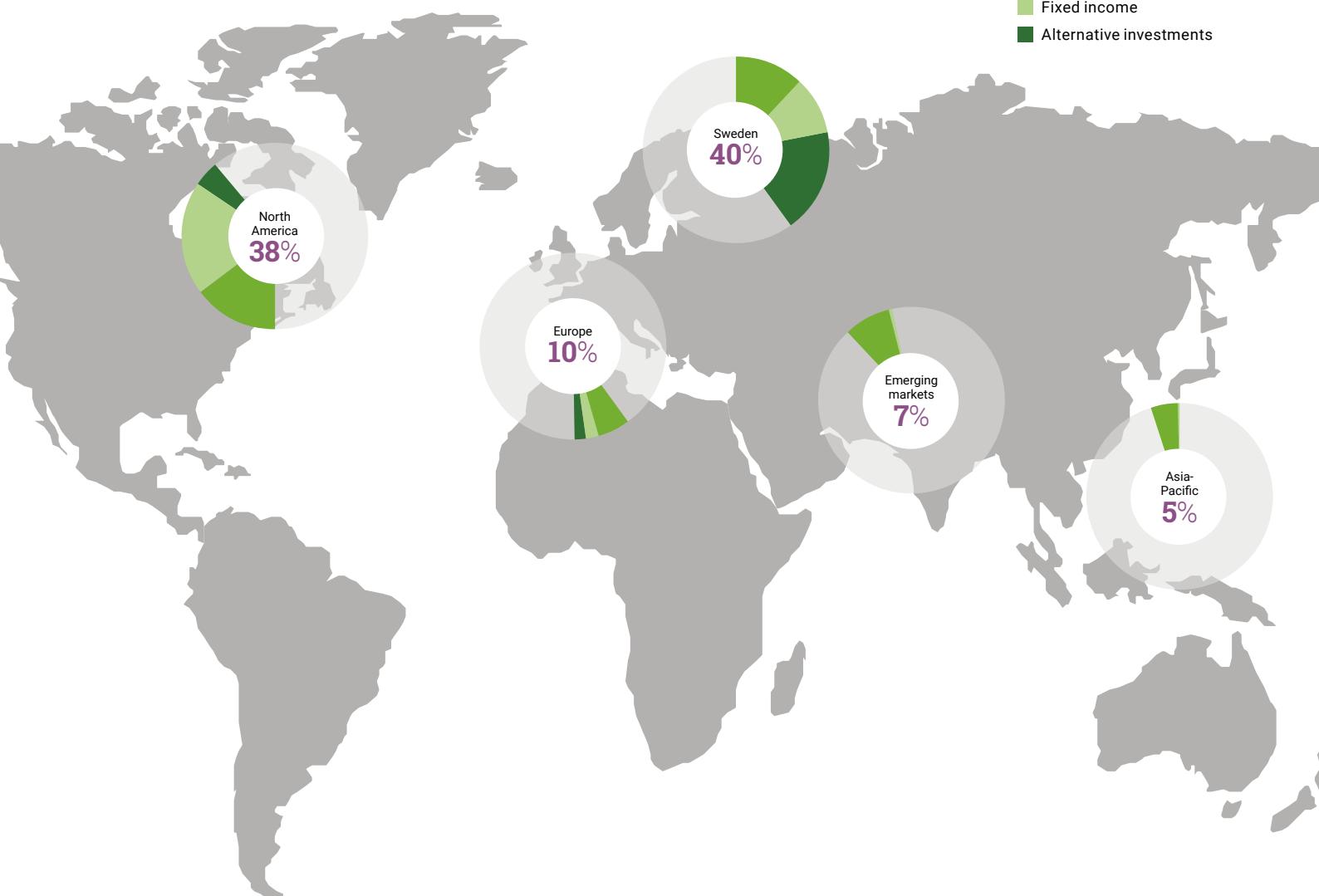
provides exposure to different equity market sectors and a highly liquid and diverse bond market.

Focus on Sweden

The AP3 investment model has been evolving for 20 years and is designed to make best use of the Fund's investment advantages and opportunities. A significant proportion of capital assets are held in

Sweden through directly owned companies and listed equities, as well as through relatively low-risk fixed income securities. Local proximity to Swedish investments allows the Fund to exercise proactive and effective corporate stewardship. AP3 is well acquainted with the Swedish market thanks to its expert fund managers and extensive network.

- Listed equities
- Fixed income
- Alternative investments



Long-term mission governs approach to sustainability and stewardship

The long-term nature of AP3's mission makes sustainability a core consideration when it comes to generating long-term value. The Fund's climate strategy is based on positive impacts that in many cases will not accrue for several decades. The

corporate stewardship model is adapted for different forms of ownership and different geographic locations. In companies where the Fund owns all or a large share of the equity – the unlisted real estate companies Vasakronan, Hemsö, Trophi, Regio and Trenum – direct influence is exerted through board membership. In Swedish list-

ed companies, AP3 engages actively with boards and management via dialogue, AGM voting and participation in nomination committees. Stewardship of non-Swedish listed companies is usually in close collaboration with other investors and directed primarily via the Council on Ethics of the Swedish National Pension Funds.

Sustainability goals and climate focus 2025

Setting sustainability goals is the core of AP3's strategy to limit negative impacts of climate change on society and on the Fund's investments. The new sustainability goals are set to be reached by 2025.

Climate change is a challenge that demands a transformation in global resource use. AP3's climate strategy applies concrete goals that reflect the fact that investing in certain asset categories can make a meaningful contribution to reducing climate-related risk and promoting sustainable development. These asset categories include green bonds and other strategic sustainable investments, particularly in unlisted assets.

Achieving sustainability in the real estate portfolio is another key strategic objective. Buildings are high consumers of resources in terms of energy, waste and materials. AP3 expects its directly owned real estate companies to be sector leaders in sustainability. In the listed equity portfolio, AP3 engages with investee companies to encourage them to reduce their climate footprint.

The Fund also works to limit sustainability risks that can adversely impact investment

returns. Measures in this context include steadily reducing the portfolio's carbon footprint by reducing exposure to – or not investing in – companies and sectors with the highest climate impacts.

As of 2014, AP3 applies specific climate goals. These have helped to spur internal sustainability engagement and to build stakeholder trust. In 2019 the Fund adopted new sustainability goals that are to be reached by 2025.

In 2019 AP3 adopted new sustainability goals to be reached by 2025:

	2019	Comments
THE AP3 PORTFOLIO will contribute to reducing the risk of global warming		<ul style="list-style-type: none">– AP3 will continue to measure and disclose carbon footprint. AP3 will again halve its carbon footprint, primarily by encouraging investee companies to reduce their climate impacts. Read more on pages 19–32.– AP3 uses scenario analysis to evaluate climate-related risks and opportunities in the investment portfolio. Read more on pages 6–7.
AP3'S STRATEGIC SUSTAINABLE INVESTMENTS will double by 2025		<ul style="list-style-type: none">– Investments in green bonds will be doubled to SEK 30 billion. These investments had a market value of SEK 17.4 billion at 31 December 2019. Read more on pages 24–25.– Other sustainable investments will be doubled to SEK 25 billion. These investments had a market value of SEK 12 billion at 31 December 2019. Read more on pages 28–29.
AP3'S DIRECTLY OWNED INVESTEES will be sector leaders in sustainability		<ul style="list-style-type: none">– AP3 is committed to ensuring that directly owned unlisted real estate and infrastructure companies lead their sector in sustainability. Achieving this goal will involve an increased focus on sustainable production and construction. Read more on pages 26–27.

Constant reduction in AP3's carbon footprint

Climate change and its effects pose one of the greatest systemic risks to long-term asset values and will require a major global shift in the use of the Earth's resources. Every year, AP3's forest holdings store more carbon dioxide than the combined carbon emissions of the Fund's investee companies. AP3 seeks to promote a general reduction in carbon footprint through investment strategy and investor engagement.

Limiting the negative impacts of climate change is vital for future economic stability and hence is critical to AP3's ability to deliver on its long-term mission. AP3 uses various strategies to reduce the negative climate impact of investee companies:

- Encouraging investee companies to reduce climate impacts in their business operations
- Investing in new solutions that help to mitigate climate impacts
- Avoiding investments in companies and sectors with major negative climate impacts

Influencing investee companies

AP3 has decided not to invest in the coal mining and oil shale industries. The Fund does not generally approach climate change by divesting companies that face climate-related challenges as it does not see this as the most effective solution. Instead, AP3 can drive positive change through active corporate stewardship.

This is about convincing companies to measure their carbon footprint and then to adapt their operating activities to reduce it.

Common metrics for measuring portfolio carbon footprint

Transparent disclosure of portfolio carbon footprint using common metrics is a way to highlight a key element of climate risk: the portfolio's sensitivity to a market price for carbon.

The Fund believes that shared and recognised metrics make it easier to understand and compare carbon footprint. Since 2015 AP3 has used three key metrics for this purpose and in 2017 also added the carbon emission metrics of the Task Force on Climate-related Financial Disclosures (TCFD).

Changes in the portfolio's carbon footprint may occur for two reasons: a change in portfolio composition or a change in the emissions of investee companies. Not until companies reduce their real emissions will we see a reduction of atmospheric carbon

and an improvement in the climate. In the past, it was not possible to show the reasons for changes in portfolio carbon footprint. However, the AP funds in 2019 were for the first time able to quantify changes over time in total carbon emissions and portfolio-weighted carbon intensity. Nevertheless, the metrics have limitations that restrict their applicability for measuring total portfolio climate risk and impact. This is because the figures do not, for example, include carbon emissions caused indirectly by investee business activities.

Climate impact continues to decrease

In 2019, the climate impact of the AP3 portfolio continued to decrease. Carbon footprint has fallen by 34% since 2014, and at 31 December 2019 was 49% lower than for the benchmark global index. As a weighted average, carbon footprint was 58% below that of the global index.

Read more about carbon footprint measurement and reporting at [ap3.se](#).

AP3's carbon footprint for listed equities ¹	2019	2018	2017	2016	2015
Equity portfolio's absolute greenhouse gas emissions (million tonnes of CO ₂ e)	1.1	1.1	1.2	1.2	1.4
AP3 vs MSCI ACWI (%)	-49%	-48%	-45%	-47%	-44%
Change in portfolio's total carbon emissions from prior year (%)	1%				
– change due to changes in portfolio holdings (% points)	2%				
– change due to changes in investee emissions (% points)	-1%				
Relative carbon emissions (tonnes CO ₂ e/SEK million)	7.4	9.7	9.4	10.2	12.2
Carbon intensity (tonnes CO ₂ e/SEK million)	13.6	15.1	15.7	15.9	18.5
Portfolio weighted carbon intensity (TCFD) (tonnes CO ₂ e/SEK million)	9.3	13.2	14.8	-	-
Change in portfolio's carbon intensity (TCFD) from prior year (%)	-30%				
– change due to changes in portfolio holdings (% points)	-19%				
– change due to changes in investee emissions (% points)	-11%				
Market value of the AP3 portfolio covered by CO ₂ e data	144.6	108.9	126.1	120.5	141.4
Percentage of share capital for which data exists (%)	82%	78%	83%	78%	81%

1) Total carbon emissions. Total of equity share of each investee plus relative share of carbon emissions.

2) Relative carbon emissions. Total of equity share of each investee plus relative share of carbon emissions.

3) Carbon intensity. Total of equity share of each investee as a ratio of investee's total revenue.

4) Portfolio weighted carbon intensity (TCFD). Total of investees' carbon intensity (emissions relative to revenue) weighted by each investee's share of portfolio.

Sources: Trucost and AP3

Swedish equities attractive to long-term investors

The Swedish equity market in 2019 benefited from stronger global economic conditions than expected. Companies with a higher sustainability rating saw their shares outperform the market – a pattern that was positive for the Swedish equity market, which is home to a comparatively high number of sustainability leaders.

12.1
percent

of the AP3 portfolio is invested in Swedish equities.

Return:
+30.1%

Contribution to total return:
+3.30%

Sweden – strong fundamentals for investors

A large proportion of the AP3 listed equity portfolio is invested in the Swedish stock market. Sweden is home to many blue-chip companies that are national and global leaders in multiple sectors. Traditionally, Swedish manufacturers are highly competitive at global level. Excellent opportunities also exist to create a diversified portfolio of attractive companies in the telecoms, pharmaceuticals, consumer goods and raw materials sectors in Sweden. Sweden also

has a strong financial sector. In recent years the technology sector has enjoyed success and Swedish companies are also attractive in this area, even if they are not always market-listed.

Sustainability as a value driver

Many Swedish businesses are leaders in integrating sustainability into their operations as a way to generate business value. This makes them more competitive and equips them to make a positive contribution to society all over the world. As a large institutional investor in Sweden, AP3 has a responsibility and an opportunity to support this development.

Fundamental analysis and sustainability integration

AP3's Swedish equity portfolio is managed internally by a highly experienced team that uses analysis-based fundamental management and leverages close knowledge of Swedish companies and their business activities. In Sweden, AP3 is an active owner and is well placed to effectuate active corporate stewardship because the Fund

often holds significant equity holdings in its portfolio companies and are familiar with their operating conditions.

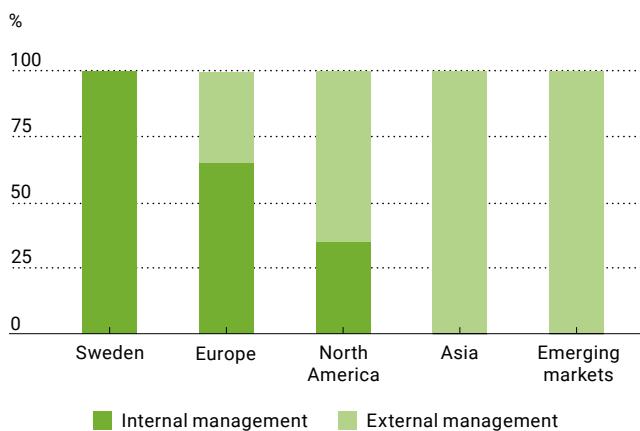
Strong performance in 2019...

A weaker krona and higher optimism over business conditions saw strong returns on shares in Swedish manufacturers. Many of the large Swedish manufacturing companies are leaders in sustainability, an area that global investors are increasingly focusing on, as shown by the higher valuations assigned to businesses with a high ESG rating.

... but not without challenges

The Swedish equity market's success during the year came despite the negative impact of money laundering claims on the banking sector and a downturn in gaming sector stocks. Both sectors saw their performance hit by the introduction of tighter regulations and oversight frameworks.

Internal/external management by region



Five largest holdings in Swedish listed companies

Name	No. of shares	Share of equity	Share of voting rights	Market value, SEKm
Sagax AB	24,227,658	5.46	3.54	3,300
Volvo AB	18,723,159	0.88	0.48	2,939
Atlas Copco AB	8,737,480	0.71	0.25	2,914
Investor AB	5,271,203	0.69	0.42	2,689
Telefonaktiebolaget LM Ericsson AB	29,890,548	0.90	0.53	2,438

Global equities – for growth and diversification

Investing in listed equities globally diversifies the portfolio and makes it possible to invest in companies and sectors that play a key role in the global economy. In 2019, investment returns were again highest in the technology sector, where US companies continued to dominate.

31.7
percent

of the AP3 portfolio is invested in foreign equities.

Return (hedged):
+26.4%

Contribution to total return:
+7.39%

Tailored global equity management

Listed equities provide an effective way to benefit from economic growth and innovation worldwide. Accessing the global equity market enables AP3 to build a cost-effective and highly diversified portfolio.

Global equity management is tailored to AP3's needs in various ways:

- Internal management – management of European equities follows the same model as management of Swedish equities, which primarily means internal management based on fundamental analysis.

- External management – the Fund uses external managers in areas where it lacks specialist skills. This is the case particularly with regard to emerging markets and small cap companies outside Sweden. AP3 hires managers with a strong sustainability focus because this is positive for value creation, especially in emerging markets.
- Model-based management methods are used both for internal and external management. These are an important complement to our analysis-based management and ensure a systematic and cost-effective approach. Quantitative analysis and model building are done increasingly with the help of machine learning and artificial intelligence.
- Corporate stewardship – AP3 believes that companies which are well managed produce higher risk-adjusted returns over time. At an international level, AP3 maximises impact by operating mainly through the Council on Ethics of the Swedish National Pension Funds and by partnering with other large institutional investors.

Well run companies increasingly in focus during 2019

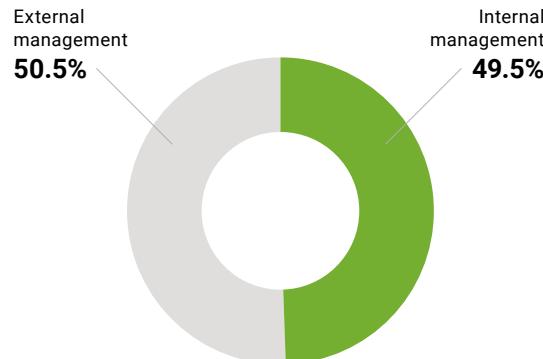
Management quality and stability has been rewarded by high valuations over the last decade, meaning that financial markets have favoured companies with strong balance sheets and stable profitability. The market's growing focus on sustainability benefits AP3 directly in the form of higher equity valuations.

IT sector drives market again

In 2019 the IT sector once again delivered the highest global returns. This was especially so in the US. Consumer-based and industrial sectors also performed strongly against a backdrop of fiscal and monetary measures that provided economic stimulus.

Both the consumer-oriented and industrial sectors are comparatively well represented in the sustainable investment arena, which itself performed well during the year. Not all the companies in these fields are sustainability models, however. Several internet giants received criticism for their business methods, and similar complaints are likely to continue.

Internal/external management in equity portfolio



Five largest holdings in foreign listed companies

Name	No. of shares	Market value, SEKm
Apple Inc	883,391	2,428
Microsoft Corp	1,480,464	2,186
Amazon.com Inc	86,161	1,490
Alphabet Inc	116,815	1,463
Nestle SA	1,379,378	1,397

Active stewardship in private equity funds increases value

AP3 has built a solid platform for private equity fund investments. Value creation relies on managers with high levels of competence and experience.

3.9
percent

of the AP3 portfolio is invested in private equity funds.

Return (hedged):
+11.7%

Contribution to total return:
+0.47%

Wealth creation via private equity funds

AP3's primary reason for investing in private equity funds is to generate a higher return compared to listed equities. Since valuation creation processes differ between private equity and listed companies, these investments are also a way to diversify the portfolio. AP3 focuses on funds and managers which have demonstrated strong returns

over an extended period of time and with which our relationships are well established. AP3's strategy is primarily focused on buyout funds and the mid-market.

More flexibility with new rules

In the past, legislation prevented the Fund from investing more than 5% of its capital in unlisted assets such as private equity funds. This restricted the Fund's room for manoeuvre and prevented new investment commitments from being signed in 2011 and 2012. The new rules introduced in 2019 increase the Fund's flexibility. AP3 has made new commitments totalling SEK 17.6 billion to private equity funds in the last five years. Investments in this asset category may continue to grow going forward.

A model that supports responsible ownership

AP3's principal responsibility as an investor is to ensure that our private equity managers act professionally, sustainably and

responsibly in combining long-term returns with sustainable practices.

Private equity funds acting longer-term

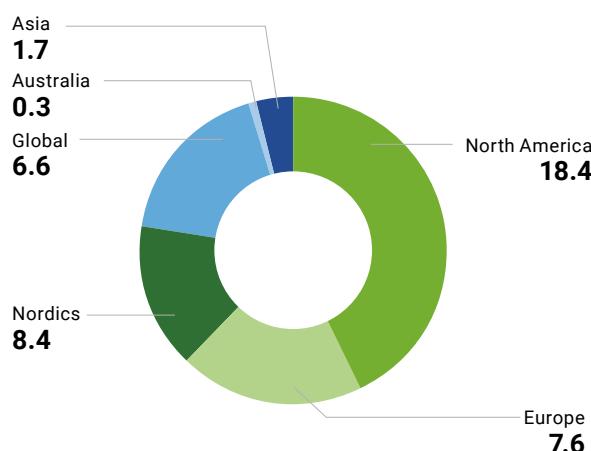
AP3 has been investing in private equity funds since 2001, since when the private equity industry has grown substantially. A standard investment time frame used to be 10 years, but today funds with longer durations of, for example, 15 years are not uncommon. AP3 utilises these longer fund lives to pursue active ownership.

Large funds – the trend continues

The private equity market was busy in 2019, with capital inflows reaching an historic high. The number of managers actively seeking funding was higher than in 2018 but lower than the year before. The concentration of capital commitments to a small number of large funds continued, while high asset prices put heavy demands on fund managers. The total capital available to private equity firms for investment also reached a record high in 2019.

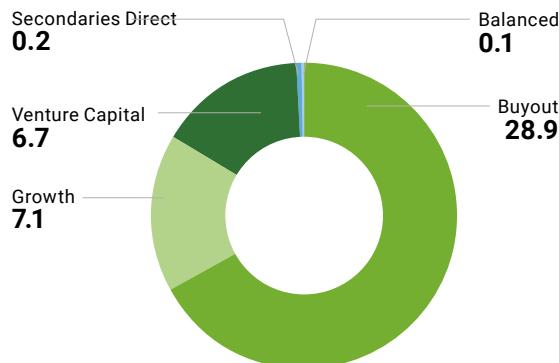
Private equity fund commitments

By region, SEK bn



Private equity fund commitments

By private equity type, SEK bn



Why invest in private equity funds?

Value creation outside the equity market

Private equity funds are a core component of value creation of AP3's long-term investment strategy. Henrik Nordlander, Senior Manager Alternative Investments, explains why.

Can you explain what a private equity fund does?

There are many different types of private equity funds, but one thing they have in common is that they raise capital from investors who can do without it for a longer period of time. This capital is then invested in companies that are not listed on a stock exchange. These may be mature businesses that have been around for a long time or relatively new businesses that need capital to grow. Every private equity fund has its own area of expertise.

How can a private equity fund create value for an investor?

In various ways. AP3 can use private equity funds to invest in companies that are not publicly traded. When private equity funds invest in a business they are typically goal-oriented and active owners, which has a key bearing on value creation. They have

a clear strategy that they seek to implement over a certain period. As owners, they have specialist insight into the sectors they invest in. AP3 sees active governance as a key factor for value creation.

How can a private equity fund at the same time be truly sustainable?

Being a long-term owner and implementing a plan over 5 or 10 years, for instance, is one aspect. Even though a private equity fund's ultimate aim is to sell the company after a certain period of time, that does not mean they take a short-term approach. Quite the opposite, actually. Today it's very clear that companies with a high ESG rating command higher valuations, so that is a key parameter for private equity funds. Companies with unsustainable business models are almost impossible to sell through a stock market flotation, for example.

This sounds very positive, but are there no downsides to private equity funds?

As an investor you need to be alert and use a good manager committed to a long-term

approach within its area of expertise. We also seek to limit private equity fund fees, which can sometimes be on the high side relative to their performance and AP3's desire for strong investment returns.

What trends do you see in the private equity market?

The first thing to say is that we see fewer and fewer listed companies in markets like the US. The number of listed companies there has more than halved in the last 20 years, which tells us that we need to be present in the unlisted market to gain exposure to the value created there. In the last 10 years we have seen two main trends – that private equity funds are getting larger and larger, and that the leverage of businesses owned by private equity firms has gone down. This translates into lower risk, which is positive.



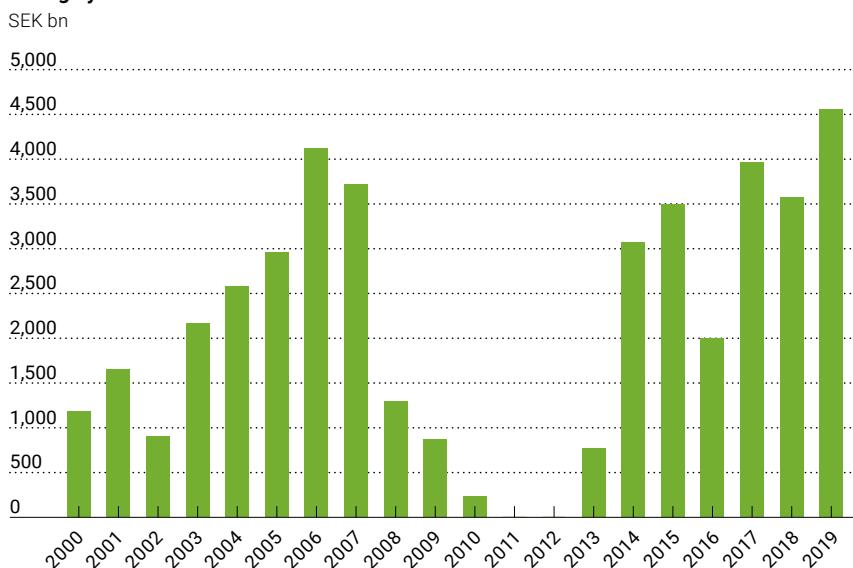
What are venture capital and buyouts?

The private equity market is divided into different types of investment. Venture capital (VC) and buyouts are two of the most common categories:

Venture capital (VC) – equity capital given to growing companies in the early stages of their development.

Buyouts – investments in relatively mature businesses by typically acquiring majority holdings (in venture capital, investments are through minority stakes). See more in the glossary on pages 79–80.

Vintage years – when commitments were made



Making regular capital commitments is a fundamental part of AP3's private equity strategy as this creates a balanced mix of early-stage and more mature investments. This is called "pacing" – investing steadily over the years.

Fixed income investments

– Increasingly vital to climate change mitigation

AP3 continued to reduce its weight in fixed income instruments during 2019, a process that was made possible by a change in legislation reducing mandatory portfolio exposure from 30% to 20%. At the same time, the Fund raised exposure in green bonds to 14% of the fixed income portfolio.

28.9
percent

of the AP3 portfolio is invested in fixed income instruments.

Return (hedged):
+2.5%
Contribution to total return:
+0.94%

Very low interest rates have also reduced bonds' traditional role in reducing portfolio risk. Prior to 2019, AP3 had already focused its fixed income holdings on US bonds, which at the start of the year offered higher returns relative to other bond markets. This exposure paid off when the global economy dipped and the US Federal Reserve cut interest rates from 2.50% to 1.75%.

Higher weight in inflation-indexed bonds

Higher inflation poses one of the most significant risks to the AP3 portfolio and the Fund therefore invests in inflation-indexed bonds, which partly insure against rising prices. However, AP3 increased exposure to these assets significantly during the year as inflation fell.

Credit management focused on Sweden

Credit management focuses on the Swedish market and has a natural connection to sustainability risk because the underlying businesses must be sustainable over time and have high standards of corporate governance. AP3 continues to take a cautious approach to credit investments because



they compensate the investor relatively modestly for the credit and liquidity risks involved. The Fund does not own any government bonds in emerging markets or Southern Europe because bond markets in these regions often correlate closely to the credit market.

Green bonds and climate change

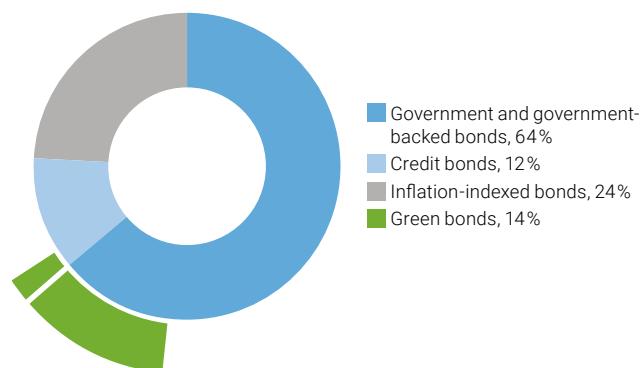
AP3 was one of the pioneers in the green bond market and made its initial investment in 2008 in the first green obligation issued by the World Bank. The Fund's green bond holdings have steadily grown since then and

Internally managed portfolio

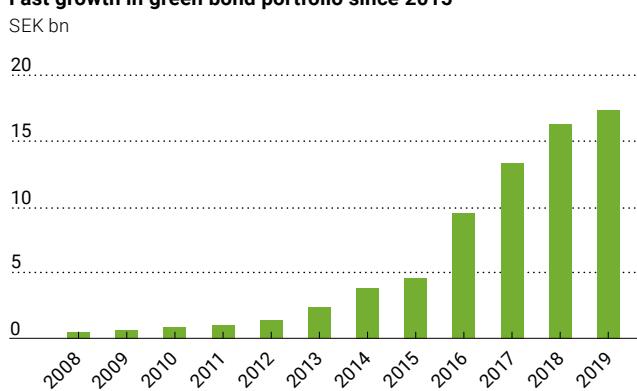
AP3 manages the entire bond portfolio internally and actively. Many of the investments are liquid, which is a prerequisite for active fixed income management.

The current low interest rate environment means that returns on fixed income instruments are very modest. As a result, AP3 has gradually reduced its weight in fixed income investments and has also chosen instruments with low duration, meaning that we have withdrawn almost completely from the eurozone and Japan, where interest rates are especially low.

Bond portfolio structure



Fast growth in green bond portfolio since 2015





Diversified value creation through currencies

Sixty percent of AP3's investments are in currencies other than the Swedish krona. Currency management is thus one of the Fund's most important sources of managing risk and gaining returns.

19.5
percent

of the AP3 portfolio is exposed to foreign currencies.

Contribution:
+2.24%



Currency management in a global portfolio

Currency management is an important part of the AP3 investment universe and exerts a strong influence on overall return. All currency management is handled internally. The Fund takes on currency risk by not hedging all foreign holdings and by taking active currency positions. Currency exposure helps to reduce portfolio risk and over time has also generated positive investment returns.

Currency strategy 2019

AP3's currency exposure remained relatively constant during the year and helped to diversify risk in uncertain market conditions. The composition of the currency portfolio was adjusted, however, to reflect a stronger dollar. Dollar exposure was reduced in favour of higher exposure to the euro. The Fund also hedged its foreign exposures by buying currency options, which rise in value if the krona strengthens.

Currency exposure in 2019



now stand at SEK 17 billion. AP3 has a goal of raising green bond holdings to SEK 30 billion by 2025 because these instruments are an effective way to mitigate climate change while offering a satisfactory return in a bond market context. Green bonds are a financial instrument whose capital is used to directly fund environmental projects – an investment model that directly impacts the borrower's activities. The ability to attract capital by issuing green bonds also has an effect on the issuer's focus and commitment to environmental issues.

AP3 has created a diversified portfolio of green bonds invested with the World Bank, the Asian Development Bank, the African Development Bank, the Nordic Investment Bank, the city of Gothenburg, Hemsö and Fortum Värme, among others. Hence, the bonds support the environment both in Sweden and worldwide.

The Fund is committed to helping drive the growth of the green bond market and has invested in a green bond fund for emerging markets. AP3 has also invested in green bonds issued by its real estate companies Vasakronan and Hemsö. In 2013, Vasakronan became the first company in the world to issue a green bond.

Successful model for real estate investments

Return on Swedish real estate remained high in 2019, with strong contributions from higher rents and price increases. As property prices rise, new projects continue to be attractive.

13.9
percent

of the AP3 portfolio is invested in real estate.

Return (hedged):
+21.4%
Contribution:
+2.74%

Real estate investments account for 13.9% of the AP3 portfolio. Investing in real estate offers potential for relatively stable returns and a degree of protection. As an illiquid asset tailored to specific operating activities, property offers a risk premium to investors a higher potential return.

AP3's strategy is to focus on Sweden through majority-owned real estate companies that enable the Fund to capitalise on its status as a long-term, responsible owner.

- Assets with long leases match AP3's long-term investment horizon.
- AP3 can capitalise on its strength as a long-term investor by owning companies rather than investing in funds with limited life and exit risk.
- Running proprietary businesses is a cost-effective way to manage assets.
- The companies have growth potential, which allows the Fund to manage capital according to market opportunities and at a low marginal cost.
- As an owner, AP3 can exert control over its companies' capital structure and financial risk.

Properties in climate change transition

Vasakronan, AP3's largest real estate investment, is one of the world's top-ranked companies in sustainability. AP3's ambition

for its wholly and partly owned real estate companies is to be sector leaders in sustainability. Property has an environmental impact throughout its life – from project planning and construction to asset management, refurbishment and demolition. AP3 has a qualitative target for green real estate and the Fund's companies are all engaged in an ongoing improvement process.

Investing for improved environmental certification

Green financing provided by banks or the capital markets can be used to make investments that reduce climate impact, for example in energy efficiency. Such investments improve a building's environmental certification, which meets increasing tenant demand for certified premises. Another example is investing in solar panels as part of enabling the transition to renewable energy. Several of AP3's real estate companies have green rental agreements clauses in their leases that commit landlord and tenant to reduce environmental impacts.

During construction and refurbishment, AP3's real estate companies strive to reduce materials used and to make environmentally conscious material choices. The planned Magasin X office building, to be

built by Vasakronan in Uppsala, will be the company's first wooden frame project. Trenum built and manages the country's currently tallest wooden frame residential building, the Bäckahästen apartment block in Västerås.

Vasakronan is working to make more efficient use of resources in its redevelopment projects by reducing waste fractions, increasing waste sorting and promoting recycling and reuse.

Hemsö's community buildings contribute to sustainable social development and the company works to provide accessible, safe and healthy indoor environments. In schools, Hemsö deploys innovative lighting solutions and green playgrounds to help create an environment conducive to learning. The company's "School Yard Upgrade" programme strives to enhance social and physical development at kindergartens and schools, by developing the outdoor premises.

Engagement to inspire

In December 2019, AP3 invited the chief executive officers and sustainability managers of all its real estate companies to a discussion about environmental challenges. Vasakronan's model serves as the inspiration for the other companies.



Vasakronan's largest project aims to be climate-neutral throughout the value chain.

Real estate portfolio

In 2019, AP3's five estate companies – Vasakronan, Hemsö, Trophi, Regio and Trenum – made further progress in social and environmental responsibility. Vasakronan, which is engaged in intensive efforts to drive sustainability through lower energy use, resource efficiency and green leases, is a role model for the entire sector.



Hemsö (Social infrastructure)

Hemsö is Sweden's largest private owner of residential care homes, schools and penal institutions. It owns properties in Sweden, Finland and Germany. Its portfolio has a market value of SEK 55 billion. Hemsö is jointly owned by AP3, which holds 85% of the equity, and Sagax, which holds 15%. The company actively seeks to integrate social, environmental and financial sustainability in its operations. Hemsö's "School Yard Upgrade" programme is a social sustainability project that seeks to raise the quality of daycare centre playgrounds and school yards. The programme, which draws on research that demonstrates how outdoor environments can positively impact learning and reduce stress, has improved 18 school yards. A further 20 are in the pipeline.



Regio (Regional properties)

Regio is a long-term owner of commercial property focused on expansive regional cities. Its portfolio has a market value of SEK 9.5 billion across 17 cities. AP3 owns 96% of the company, which is operated by co-owner Brunswick Real Estate. Property management and development is in collaboration with local partners. All Regio properties are sustainability classified and have a clear focus on energy, resource and materials use and digitalisation. As an example, at Råby Centrum in Västerås Regio has halved energy consumption in its properties. The company also engages in property development projects to increase social utility.



Vasakronan (office properties)

Vasakronan is Sweden's largest real estate company, with a portfolio worth SEK 156 billion spread across 174 properties in urban centres. The company owns, manages and develops commercial real estate in Stockholm, Uppsala, Gothenburg and Malmö and is owned in equal shares by AP1, AP2, AP3 and AP4. Vasakronan is a climate-neutral property manager that has more than halved energy consumption across its portfolio since 2008. Green finance accounts for 47% of the company's borrowings and as of 2017 all new leases are green. Vasakronan's is currently building Sweden's largest real estate project at Sergels Torg in central Stockholm. The project seeks to be climate-neutral throughout the value chain and to deliver safe, secure and healthy indoor environments.



Trenum (Residential rental properties)

Trenum focuses on new leasehold residential properties in Sweden's three largest cities and other growth centres. Its portfolio has a market value of SEK 7.2 billion and the company is equally owned by AP3 and Fastighets AB Balder. All Regio-built properties are environmentally certified. In 2019 the company built Sweden's tallest wooden building – in Västerås.



Trophi (Retail properties)

Trophi is Nordic region's leading provider of food retail property. Its portfolio, located in Sweden and Finland, has a market value of SEK 14 billion. The largest tenants are ICA, Coop, S-gruppen and Kesko. Trophi is wholly owned by AP3 and is operated by Redito. The company works with tenants to promote sustainability through green lease contract clauses, sustainable materials and greater use of renewable energy through the installation of solar panels and geothermal energy in locations such as Uppsala.

Tomorrow's infrastructure

Infrastructure investments fit well with AP3's long-term mission. A proposed amendment to the National Pension Insurance Funds Act allowing for increased investment in unlisted assets will boost AP3's scope to invest in infrastructure. Changes in energy policy and regulation pose the primary challenges in this area.

4.4
percent

of the AP3 portfolio is invested in infrastructure.

Return (hedged):
+2.8%

Contribution to total return:
+0.14%

Investment class suited to long-term investors

AP3's attributes as an investor make infrastructure a suitable area for investment because:

- It connects a long-term ownership commitments with assets that are often subject to long contracts.
- It offers the prospect 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.

The National Pension Insurance Funds Act does not currently allow general investments in infrastructure assets, instead only permitting investments that are classified as real estate. A proposed amendment to the act that is expected to take effect in the first half of 2020 following parliamentary assent will give the AP funds added scope to increase their infrastructure investments, providing greater flexibility while emphasising sustainable investment over the long term.

Focus on Swedish market

AP3 has a strong focus on the Swedish market, and most of our unlisted investments are in Sweden. These largely take the form of owning and running real estate companies, either alone or in partnership with other investors. This model is also applicable to dedicated infrastructure investments:

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

AP3 also invests in international infrastructure funds. These investments typically 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 investing in the Swedish infrastructure of tomorrow. The electricity distribution company Ellevio is a prime example of this. The investment in Ellevio was made in 2015 and illustrates how AP3 can combine its attributes as an investor with international expertise in a specific field. Ellevio is continuously developing significant competence within business areas that relate to the ongoing electrification and energy transition of society.

Case study Ellevio



A key player in the transition to a post-carbon society

Ellevio is one of Sweden's largest electricity distributors, with close to 1 million customers in central regions and in Stockholm. Ellevio's innovative capacity within electricity distribution makes it a key player in the current energy transition of society.

The ambition is for Sweden to have a fossil-free car fleet by 2030. Close to 1 million electric cars are projected to be in use on Swedish roads by this date and may

require up to 100,000 public charging stations. Sweden is well placed to be a leader within this field thanks to a well-built electricity network and a favourable energy generation mix that will allow people to charge their vehicles with fossil-free electricity.

More charging stations needed

Stockholm City Council expects that at least 15,000 public charging stations will be needed in Stockholm alone by 2030, with

Case study Polhem

A whole new way to invest in infrastructure

In 2019 AP3 partnered with AP1 and AP4 to found Polhem Infra as a means to securing long-term and cost-efficient investments in Swedish and Nordic infrastructure. During the autumn the company made its first investment – in Solör Bioenergi, a district energy provider.

Polhem Infra targets large infrastructure investments in the private and public sectors with a focus on collaboration and sustainability. It invests with other long-term industrial and financial partners and aspires to be a stable, responsible and long-term owner.

Infrastructure investments are often in regulated monopolies, which from an investor standpoint generate predictable cash flows that grow over time in step with demographics. This fits well with AP3's long-term investment profile.

Polhem Infra defines infrastructure as business activities that operate or provide socially beneficial services and assets. Examples include renewable energy production, energy storage and distribution, and digital infrastructure.

Exciting first year

During its first year Polhem Infra constructed its organisation, recruited personnel and appointed a permanent CEO. It is now stepping up its investment valuation activities and has so far received a very positive response from multiple stakeholders.



The company's first investment saw it become a part-owner of Solör Bioenergi, an energy producer and distributor. The company is one of the first in Sweden to specialise in biofuel-based district energy with a clear sustainability profile. Established in 2010, Solör has created a geographically diversified business and contributed to the consolidation of Sweden's fragmented district energy market. The company now supplies district energy in 43 locations in Sweden, from Vilhelmina in the north to Tomelilla in the south. Solör's unique strategy of owning and operating small and medium sized district heating plants gives Polhem Infra access to a key part of the Swedish energy market – and one that not only performs an important social function

but also has a strong environmental profile. The investment fits well with Polhem Infra's strategy of investing in infrastructure and the priority now is to continue to strengthen Solör's position as a responsible provider of renewable energy.



Polhem Infra is an investment company established by AP1, AP3 and AP4. It specialises in direct investments in unlisted Swedish business activities that operate or provide socially beneficial services and assets. Examples include renewable energy production, energy storage and distribution, and digital infrastructure. Read more at polheminfra.se

the real figure perhaps being as high as 25,000. Today the city has less than 2,300. More charging stations are essential to ensure that electricity availability does not slow the transition to a fossil-free transport sector. Achieving this requires amongst other things a robust and accessible electricity network infrastructure.

Long-term value creation

With close to 1 million customers in central Sweden and Stockholm, Ellevio is an important player that is keen to play its part in facilitating the transition. The company

invests in its network every year and the opportunity to build charging infrastructure is close to its core competencies. The company works closely with Stockholm City Council to help charging station operators plan which streets are most suitable for installation of charging poles. Ellevio's capacity to innovate is thus contributing to energy-saving and the transition to a more sustainable society. This makes Ellevio an investment with good prerequisites to create value for society and AP3 as a long term owner.



Ellevio owns, operates and develops regional and local electricity networks and distributes electricity to 960,000 customers in Sweden. The company's electricity network cables stretch for 76,000 kilometres – or twice round the Earth. Ellevio is a Swedish limited company based in Stockholm and owned by OMERS Infrastructure, formerly Borealis Infrastructure Management (50%), AP3 (20%), Folksam (17.5%) and AP1 (12.5%). Read more at ellevio.se

Timberland – a long-term investment that stores carbon

AP3 began investing in timberland in 2004 and now owns 140,000 hectares of production forest. Some of these holdings are directly owned but most are held through a group of 10 or so funds. The forests are sustainably managed and 95% are environmentally certified. Around 6,3000 hectares are set aside for nature conservation. The timber is used primarily for building materials, furniture and to manufacture paper products.

1.2
percent

of the AP3 portfolio is invested in timberland.

Return (hedged):
+7.6%

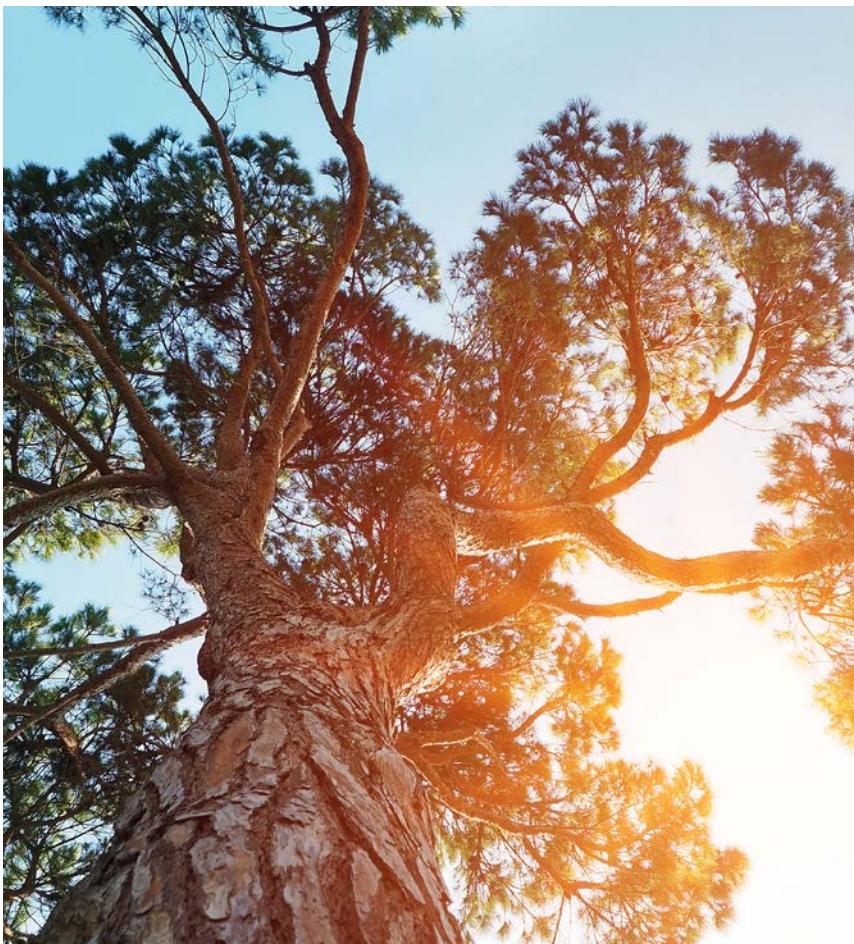
Contribution to total return:
+0.11%

AP3 owns timberland in Sweden, America, North America, Africa and Oceania. Holdings are concentrated in a group of some 10 timberland funds. Direct investments are through Gysinge Skog, a company established following the winding up of Bergvik Skog. Investing in different regions and tree species diversifies risk in the timberland portfolio. Trees grow faster in tropical regions than in Sweden. In many cases, timber from tropical zones is sold into other markets, which promotes risk diversification.

Valuable carbon sink

This makes timberland a good long-term investment and an excellent fit for the AP3 portfolio. Forests take decades to grow and as they do so they store carbon dioxide independently of the business cycle. AP3's forests store a total of 20 million tonnes of carbon and in 2019 their annual growth sequestered 1.5 million tonnes of atmospheric carbon. This is more than the carbon emissions of the listed equity portfolio.

The Fund's timberland holdings can also be expected to generate strong returns also if climate scenarios turn negative. For example, increased atmospheric carbon and higher temperatures due to global warming are likely to promote faster tree growth in Sweden. Hence, timberland adds stability to AP3's overall investment returns over time.



Wood instead of concrete and steel

Forests are the historic source of raw material for the pulp and timber industries and remain so today. New segments such as wood chips, biofuel and new alternative materials are also emerging. In building construction, interest is growing in replacing materials like concrete and steel with wood as a way to save energy and store carbon.

By working closely with new and existing strategic partners, AP3 sees great potential for providing sustainable timber and other wood-based raw material to the industry.

Climate impacts of timberland holdings:

- They store around 20 million tonnes of CO₂, both above and below ground.
- A further 1.5 million tonnes or so of CO₂ are stored by the annual growth of AP3's forests. This is more than the carbon emissions of the listed equity portfolio.

Insurance risk – a systematic strategy

AP3 has been investing in different types of insurance-, climate- and weather-related securities since 2008. Holdings 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 help to diversify the portfolio.

0.9
percent

of the AP3 portfolio is invested
in insurance risk.

Return (hedged):
+1.5%

Contribution to total return:
+0.02%

Systematic strategy

In this area, AP3 systematically takes on different types of insurance risk, for instance the risk of hurricanes, earthquakes or flooding. During years when disaster occurrence is low, we 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 expects to earn favourable risk-adjusted returns in this area.

This strategy looked attractive when first designed 10 years ago. In hindsight, it has more than matched expectations. The Fund has done well even in peak disaster years like 2011 and 2017.

Analysing and tracking climate trends enables AP3 to make informed investment decisions. Climate change may be a rapid process geologically speaking, but from a financial perspective it is slow. AP3 invests in instruments with a maturity of three years, which means that their pricing adjusts much faster than climate risk.

Investments in insurance risk are strategic, long-term and help to make insurance markets more efficient. Pandemic insurance helps to channel capital quickly to relief efforts.

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 AP3's long-term approach and ability to conduct effective internal management of complex assets.



External mandates complement AP3's active management

AP3 assigns external mandates to add portfolio value and in cases when it is not rational to build up an internal organisation. Hedge funds are the primary constituent of absolute return strategies.

1.9
percent

of the AP3 portfolio is invested in absolute return strategies.

Contribution to total return:
+0.37%

AP3's ambition is that also companies owned indirectly through external managers uphold high standards of sustainability and corporate governance.

Partnerships

AP3 seeks to develop productive partnerships with external managers, which are often well-resourced international actors with extensive networks. Their expertise in areas such as portfolio construction and equity and macroeconomic analysis is often useful to AP3. Partnerships often promote productive discussions and fruitful exchanges of knowledge and ideas.

AP3's specialist mandates

In emerging markets, AP3's investments have long been managed by external managers – with impressive results. The Fund has consciously chosen managers with broad market exposure, but also specialists

focusing on small cap companies. In both cases with a strong sustainability focus.

In 2019 AP3 also procured active management mandates for small cap companies in Europe and the US. These investments were previously largely passive but the Fund's growing focus on sustainability and active ownership have prompted a change in strategy.

Absolute return strategies

Due to relatively weak returns in absolute return strategies in the last few years, AP3's exposure to this asset class is fairly low and the portfolio comparatively concentrated. The remaining strategies are comprised of CTAs and funds invested in macroeconomic, credit and emerging market strategies. Volatility strategies are another area, and one in which AP3 has invested for many years and with excellent results.

Complementary role

AP3 manages its assets predominantly using internal teams or directly owned companies. However, the Fund uses external managers for specialised mandates where it is not rational to create an internal organisation. A rigorous selection, evaluation and monitoring process is applied to these mandates.

The Fund uses external mandates for listed equities and listed fixed income instruments and also for absolute return strategies. In the latter case, this is typically via hedge funds.

Long-term relationships and sustainable approach

AP3's desired investment horizon is three to five years and the Fund selects external managers on that basis. A long-term perspective is a key factor in being able to demand sustainable practices, for avoiding reliance on short-term performance and for being able to evaluate and integrate the value created by an external manager.

Conversely, a longer investment time frame helps external managers to learn about AP3's sustainability commitments and to develop their expertise. The aim is for external managers to replicate AP3's sustainability engagement in their portfolios and for AP3 to learn about progress in corporate governance in other parts of the world.

AP3 searched for external managers for small cap equities in Europe and US in 2019



In 2019 AP3 conducted a search for the best small cap fund managers in the US and Europe, with some of the interviews conducted by videoconference. This is an excellent way to save time, money and carbon emissions for both parties. AP3's external management and sustainability teams took part in the selection process. Candidates were judged on their sustainability analysis methods and how sustainability was integrated in the investment process, as well as on specific sustainability risks attached to their product.



Sustainable value creation through active stewardship

Corporate stewardship is a core part of AP3's focus on sustainability. The Fund believes that well managed companies which adopt a responsible approach to climate challenges and social issues deliver superior risk-adjusted returns over time.

AP3 is a committed owner that uses proactive stewardship to press for positive change in investee companies. Efforts focus primarily on the Swedish equity market as this is where the Fund's ability to exert influence is greatest due to its largest holdings. At international level, the Fund seeks maximum impact by working closely with the other AP funds via the Council on Ethics of the Swedish National Pension Funds and by partnering with other institutional investors. In this context, AP3's guiding principles are engagement, action and positive change. The Fund believes that investors with a strong position in the capital markets are well placed to exert a positive influence and to place demands on investee companies.

Different strategies for different holdings

The AP3 portfolio invests in the shares of close to 1,600 companies, 140 of which are Swedish. Stewardship strategies are tailored to the size of each holding and address the areas where the Fund sees maximum scope for achieving influence and impact.

- In companies where the Fund owns all or a large share of the equity – notably the unlisted real estate companies Vasakronan, Hemsö, Trophi, Regio and Trenum – direct influence is through board membership.



- AP3's influence over non-Swedish listed companies is limited and here we collaborate with other investors, primarily via the Council on Ethics.
- AP3 engages actively with Swedish listed investees via dialogue, AGM voting and participation in nomination processes. Here, the Fund's comparatively large equity holdings increase its ability to exert influence. AP3's strong position in the Swedish capital market also provides greater weight vis-à-vis Swedish investees.

Wide-ranging engagement

AP3's stewardship take place on a broad front based on a set of core principles that are independent of investee or location:

- Influence the structure of **remuneration programmes** – by making share-based incentive schemes clearly and measurably linked to performance

- Influence **board structure** – by pressing for greater diversity and separation of the roles of chairman and CEO.
- Ensure investees preserve their **capital strength** – by curbing overly generous mandates.
- Promote healthy **working conditions** – by combating abuses of power.
- Counter financial **crime** – by spotlighting anti-corruption and money laundering.
- Encourage investee companies to adopt a **climate strategy** – by urging them to measure and report carbon footprint and reduce their climate impacts.

Increased activity within governance

AP3 exerts influence by engaging in dialogue with directors, management and investors, participating in nomination processes and voting at company meetings. AP3 been scaling up its sustainability engagements. Today the Fund takes part



Engagement, action and positive change are AP3's three guiding principles in corporate stewardship. The aim of active governance is to help companies operate more efficiently and to respond more effectively to climate-related and social challenges.

Peter Lundkvist,
AP3 Head of Corporate Governance

in many more global investor initiatives and engages in dialogue with many more companies than in the past.

The Fund has also increased its voting activity at company meetings. When AP3 began exercising active governance in the portfolio, in 2008, the Fund voted at 70 AGMs of non-Swedish investees. In 2009, AP3 voted at more than 1,000.

This was despite almost halving the number of companies in the equity portfolio during the year, from 3,000 to 1,503. Hence, the Fund votes today at a much larger proportion of AGMs – around 60% – than before.

Climate-related issues high on the agenda

Several clear trends are visible in corporate governance. They include long-term thinking, sustainability and diversity. Sustainability is rising steadily up the corporate agenda. Climate change, for example, is today a central issue for most companies. Transparency is also increasingly important for companies and their shareholders, with disclosure practices being considerably more open than they were a few years ago. Another trend is the growing pressure on company boards and managements to embrace diversity and to better reflect society at large, for example by promoting greater diversity at board level. All are priority issues for AP3.

Uphill task to influence remuneration programmes at foreign investees

Another trend is that executive remuneration no longer attracts the level of scrutiny that it did in the past, particularly at annual meetings. The share-based remuneration packages proposed by most Swedish companies are far less controversial than they used to be. Today it is unusual for such proposals to fall short of the requirements applied by AP3 and other institutional investors. However, this is not the case for foreign companies. In 2019 AP3 voted against more than half of all executive pay resolutions at non-Swedish investees. Foreign companies clearly find it harder than their Swedish counterparts to meet our requirements in this area. It is difficult as an investor to exert influence in non-Swedish

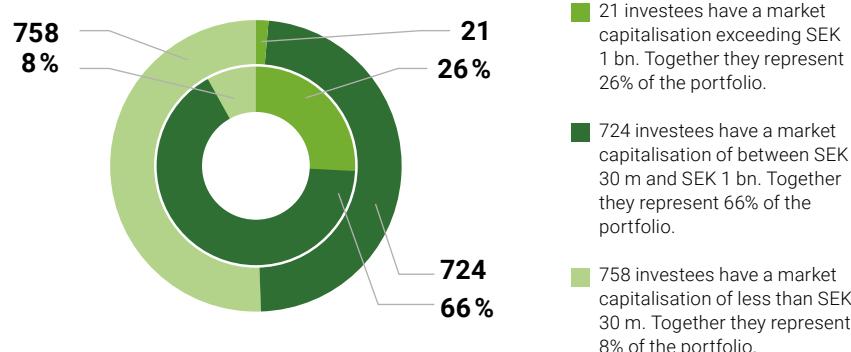
companies because remuneration is often approved directly by the board and shareholders have only an advisory role.

Executive remuneration and trust

In Sweden, companies typically take on board AP3's views in matters of corporate governance. Over time, a climate of trust has developed between them and us as a transparent and professional owner. Such trust is harder to build in foreign investees. Here, AP3's equity holdings are smaller and the Fund is less known than it is at home. It is clear that foreign investees often struggle to match AP3's high demands. In 2019, the Fund voted against three out of 10 board resolutions at foreign companies in our portfolio.

Stewardship varies according to investment size

The size of AP3's equity holding in a company affects the Fund's level of influence. The larger the holding, the greater opportunity to be seen and heard.



Council on Ethics of the Swedish National Pension Funds 2019

The Council on Ethics of the Swedish National Pension Funds plays an important role in engaging with foreign investees on behalf of the AP funds in sustainability-related matters.

In 2019 the council's engagement with mining companies produced a breakthrough in the form of a database that documents responsible practices. The database may prove a useful tool for encouraging mining firms to make progress in this area.

The council joined forces with the Church of England to mitigate mining disasters caused by poor dam safety. This project created a public database and global standard that have since been launched in a bid to prevent such catastrophes and their

impact on people and the environment. Mining companies submit data about their operations to the database, thus improving transparency for external stakeholders. The initiative won praise from many quarters.

Mitigating climate change and financial crime

In September the Council on Ethics hosted a seminar attended by all Sweden's major banks and financial regulators and other stakeholders to discuss money laundering and financial crime. Now the aim is to build on this momentum through further engagement and meetings.

The council is also involved in the Climate Action 100+ project, an investor initiative to engage with oil and other companies to reduce carbon footprint. *Read more at etikradet.se*

Raising efficiency and expertise through collaboration

The AP funds continue to deepen their collaboration at administrative level.

In 2016 the AP funds formed a Collaborative Board charged with helping AP1, AP2, AP3 and AP4 to work together more closely across all areas outside asset management. In 2018 AP7 joined the Collaborative Board.

The National Pension Insurance Funds Act requires the AP funds to manage their assets to generate maximum benefit for the income pension system. In a review of the act, the government stressed the importance of collaboration where merited, for instance to reduce costs or achieve scale benefits. Greater cohesion should increase the funds' cost efficiency without compromising their independence or eroding the differences between their respective investment models.

What is the role of the Collaborative Board?

The Collaborative Board's overall role is to be a forum for exchanging knowledge and information and for making sure this process is effective and collaborative. The board has eight sub-groups (see box). Each AP fund appoints a member to the Collaborative Board. The task of chairing the board is shared by the funds on an annual rotating basis. The chairman leads the board's work and strategy. The board's role includes setting a shared structure to ensure that all the sub-groups have a shared approach and work plan. The Collaborative Board is responsible for reporting on the sub-groups' work and outcomes to relevant stakeholders.

How do the different sub-groups work?

Each sub-group has a defined process focused on identifying areas where clear potential exists to drive collaboration and cost-efficiency across the AP funds. Each sub-group draws up its own terms of reference and an annual work plan. The work plan is evaluated on a six-monthly basis and a progress report submitted to the Collaborative Board.

What were the highlights in 2019?

During the year the Collaborative Board focused on further developing the sub-groups' structure and operating guidelines. These were adopted by the sub-groups and the next step will be for the structure to bed in.



The AP funds collaborate at administrative level when working together adds value.

The AP funds hold an annual Collaboration Day at which they meet to discuss cooperation and information sharing. The theme of year's event was to get more from our collaboration and make the Collaborative Board better known internally and externally. The sub-groups also reported on their collaboration in IT, reporting and systems management. During the year the Collaborative Board was also closely involved in establishing joint procurement for public contracts, internal audit services and telephone and data centre services.

What happens after that?

The Collaborative Board evaluates its work on an annual basis.

Other areas of cooperation

AP1, AP2, AP3 and AP4 work closely together through their joint Council on Ethics of the Swedish National Pension Funds. These funds also collaborate with AP6 and AP7 in a carbon footprint measurement project.



Collaborative sub-groups exist in these areas:

- Back office
- HR & personnel
- IT
- Legal affairs and compliance
- Communications
- Accounts
- Risk and performance
- Systems management

AP3 is an active supporter of the UN Sustainability Goals

The 17 United Nations Global Goals for Sustainable Development serve as guidelines for global collaboration between governments, civil society and the business sector. The goals, which are intended to be achieved by 2030, seek to abolish poverty and create a sustainable world.

AP3 supports the goals and together with a group of Europe's largest pension funds has signed a statement stressing the need for institutional investors to allocate their capital to companies and solutions that actively contribute to achieving the goals. It is difficult to measure the impact of portfolio investment on achieving the goals, although the Global Reporting Initiative (GRI) and

Principles for Responsible Investment (PRI) are doing extensive work in this area.

AP3 contributes indirectly to meeting the goals through its sustainability engagements and investment choices. Here are some AP3 investments that we believe will have a major impact on different Global Goals:



Goal 6: Clean water and sanitation

AP3 has invested in water infrastructure, including in water supply and water treatment. The Fund works with other investors to create further investment opportunities in the water sector.



Goal 7: Affordable and clean energy

Solar power is becoming increasingly significant for real estate companies, and take-up of this technology is increasing 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. In 2019, Polhem Infra completed its first infrastructure investment, acquiring 21% of the equity in Solör Bioenergi Holding AB, a provider of renewable district energy in Sweden and Norway.



Goal 8: Decent work and economic growth

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



Goal 9: Industry, innovation and infrastructure

Modern and effective infrastructure promotes economic growth and development. AP3's investments and corporate stewardship contribute to increased efficiency in resource use, higher production capacity, innovation and flexible solutions in a changing world. In 2019 AP3 partnered with AP1 and AP4 to establish Polhem Infra, an investment company that invests directly in unlisted companies that operate or provide products and services in renewable energy production, energy storage and distribution, and digital infrastructure.



Goal 11: Sustainable cities and communities

AP3's large investment holdings and active corporate stewardship make the Fund a strong advocate for sustainable practices. Vasakronan is a leader in energy-saving and efficient offices and is a role-model for the Fund's other real estate companies. Hemsö is active in community infrastructure and is, for example, helping to create safer school environments. The other companies in AP3's real estate portfolio – Trophi, Regio and Trenum – are committed to resource efficiency and social responsibility.



Goal 13: Climate action

Substantial investments by AP3 in timberland and green bonds have delivered a portfolio that today is carbon-neutral. The Fund takes account of investees' carbon footprint and climate impacts when investing. AP3 is committed to again halving its carbon footprint by 2025, primarily by encouraging investee companies to reduce their climate impacts.



Goal 12: Responsible consumption and production

AP3 owns 140,000 hectares of forest, 95% of which is environmentally certified. Sixty percent of the timber is used for building materials, furniture and home decoration, while 40% is used to make paper and paper-based products.



Goal 15: Life on land

Sustainable forests are good for the climate. AP3 owns 122,000 hectares of production forest that is sustainably managed. A further 6,300 hectares of forest is set aside to conserve 11 species of animal and plant and their natural ecosystems.



THE GLOBAL GOALS
For Sustainable Development

Every employees counts

Managing the pensions of Sweden's current and future pensioners is a proud and important mission. For AP3, it means acting sustainably, professionally and responsibly at all times.



AP3 is a knowledge-centric organisation in which every employee plays a vital role and in which our collective expertise and experience drive performance. As an employer, AP3 sets high standards and at the same time prioritises the work-life balance of all employees. Diversity is an organisational cornerstone and the Fund actively promotes workplace inclusion and equality. Thirty-six percent of the Fund's employees are women and 40% of managers are female.

AP3 promotes skills development through training courses, seminars and conferences. In 2019, external and internal speakers were invited to address Fund employees on a wide range of topics, including sustainability and digitalisation.

Many steps were taken during the year to digitalise and streamline internal processes and practices. The Fund also launched an initiative to improve collaboration and nurture collective intelligence as a route to forging closer links between our different specialist areas.

AP3 is proactive in establishing and developing an organisational culture that promotes personal development and encourages creativity and collaboration. During the year we successfully implemented improvement measures identified in the prior year's employee survey.

It is essential that the Fund possesses high levels of specialist skill in the right areas. To achieve this we focus on:

- Clear mandates that encourage individual responsibility and collaboration.
- Supporting a professional asset management environment focused on continuous skills development.
- Working closely with other international leaders in the economic and financial field.
- Promoting a healthy work-life balance.
- Fostering a business culture based on clear targets, feedback and collaboration.
- Ensuring annual appraisals for all staff.

In 2019, all employees had at least one appraisal with their immediate manager.

“I’m a firm believer in the organisation’s ability to create added value and to drive skills development and career development across multiple dimensions.”

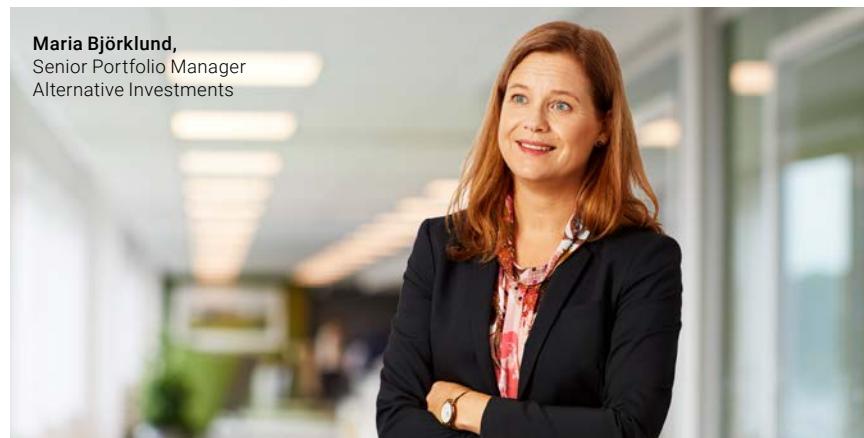
What I like especially is that everything we do at AP3 has a strong results focus and that we use our internal expertise when moving into new areas. For me, this meant applying my experience of managing technology equities when I was asked to take over an internal equity mandate focused on sustainability. I’m a great believer in the organisation’s ability to create added value and to drive skills development and career development across multiple dimensions. The fact that we have deep and broad experience of investing in many different areas is also vital for developing our investment processes.



“For me, being part of an important mission that directly benefits the public is very meaningful and stimulating. The same goes for being part of a knowledge-intensive organisation in which you can clearly see your operational and strategic role.”

It’s very meaningful and stimulating for me to be part of an important mission that directly benefits the public. The same goes for being part of a knowledge-intensive organisation in which you can clearly see your operational and strategic role. Everyone makes a clear and important contribution to our results and success. As Head of Human Resources, I’m fortunate to be able to see my work through from start to finish and to participate in the entire process. I really love having an overview of the organisation and the opportunity to work both strategically and operationally.

Maria Björklund,
Senior Portfolio Manager
Alternative Investments



“I’m proud to work for an organisation where everyone works towards the same goal and shares the same sense of responsibility.”

Infrastructure and real estate – the asset categories I work with – are an excellent fit for a long-term investor. AP3 has a strong reputation in the market and extensive experience of private equity investment. I can contribute with my own knowledge and experience while also learning new things and developing professionally. The organisation is based on strong values and openness, and management is good at communicating and consulting with staff. There’s a great atmosphere, and everyone is part of that. I’m proud to work in an organisation where everyone works towards the same goal and shares the same sense of responsibility attached to working on behalf of current and future pensioners.

“As a leader, what you want is for people to follow you. That’s a responsibility you need to treat with respect. It’s not about pushing people around.”



Fredrik Axelsson,
Head of Risk &
Performance

I’ve worked as a manager at AP3 for just under a year and am very impressed with the level of expertise in my team and across the Fund as a whole. People really looked after me when I was new and it’s clear that everyone feels a strong sense of responsibility to live up to the trust the public put in us. It’s fantastic to work with something meaningful. The energy in the organisation is excellent and it’s especially exciting to have joined the Fund at a time when we are making major changes. As a leader, what you want is for people to follow you. That’s a responsibility you need to treat with respect. It’s not about pushing people around.



Investment evaluation

The AP3 board of directors evaluates investment operations continuously over longer time periods. Evaluations apply four metrics that are based on the Fund's financial and sustainability goals.

1 Return compared to target

AP3 evaluates investment performance against the portfolio's long-term target, both since inception in 2001 and over rolling 10-year periods. Average real return since inception stands at 4.8% 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 asset management alternative. The LSP has a 55:45 mix of listed equities and bonds, is rebalanced monthly and has no transaction costs. The LSP is constructed to represent a portfolio that is capable of achieving a real annual return of 4% over time. Benchmarking performance against the LSP evaluates the efficacy of AP3's chosen approach, whereby the Fund invests in a more sophisticated asset management model and puts greater reliance on management. In 2019 the AP3 portfolio generated a return of 17.6%, compared to 17.3% for the LSP. In monetary terms, this represents a difference of SEK 0.9 billion. Since the introduction of this benchmark in 2012, AP3's investment management has outperformed the LSP by 33 percentage points after costs, which represents a gain of SEK 63 billion for the pension system.

3 Key figures benchmarked against peer group

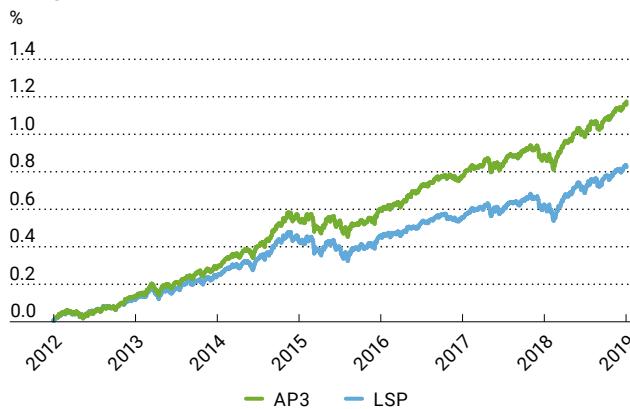
AP3 aims to meet a high international standard in asset management and compares costs and expenses to a benchmark group of international investors. The benchmark funds are selected by consultancy firm CEM Benchmarking and have similar profiles to AP3 in terms of assets under management, target returns and overall mission. In 2014–2018, AP3's expenses were 33% lower than the benchmark group average. In that period, AP3 recorded an annual return of 7.8%, compared to 6.5% for the benchmark group.

4 Evaluation of sustainability goals

In 2019 AP3 introduced new climate-related sustainability goals. These reflect the Fund's belief that setting measurable targets drives positive change. The goals focus on areas in which AP3 is best placed to exert an impact without compromising its mission to maximise investment returns. The goals seek to mitigate global warming risk by halving the Fund's carbon footprint, by conducting scenario-based analysis of climate-related risks and opportunities, by doubling holdings of green bonds and strategic investments and driving the development of green real estate. The goals are intended to be reached by 2025. Read more about AP3's sustainability goals on pages 17–19, 34, 35, 37 and in the portfolio description on pages 20–32.

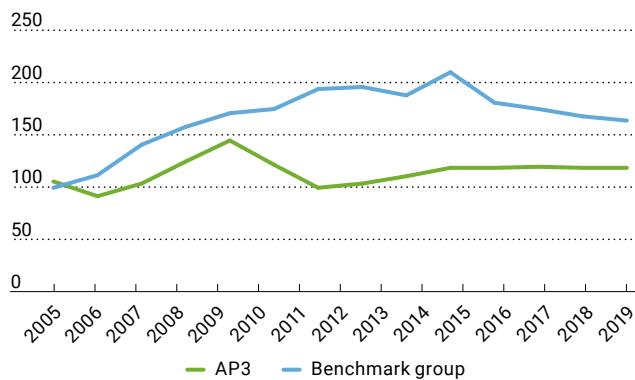


AP3 performance versus LSP, indexed, 2012–2019



Since the launch of the benchmarking process in 2012, AP3's investment returns have outperformed the LSP by 33 percentage points,

AP3 expenses versus benchmark group, indexed, 2005–2018

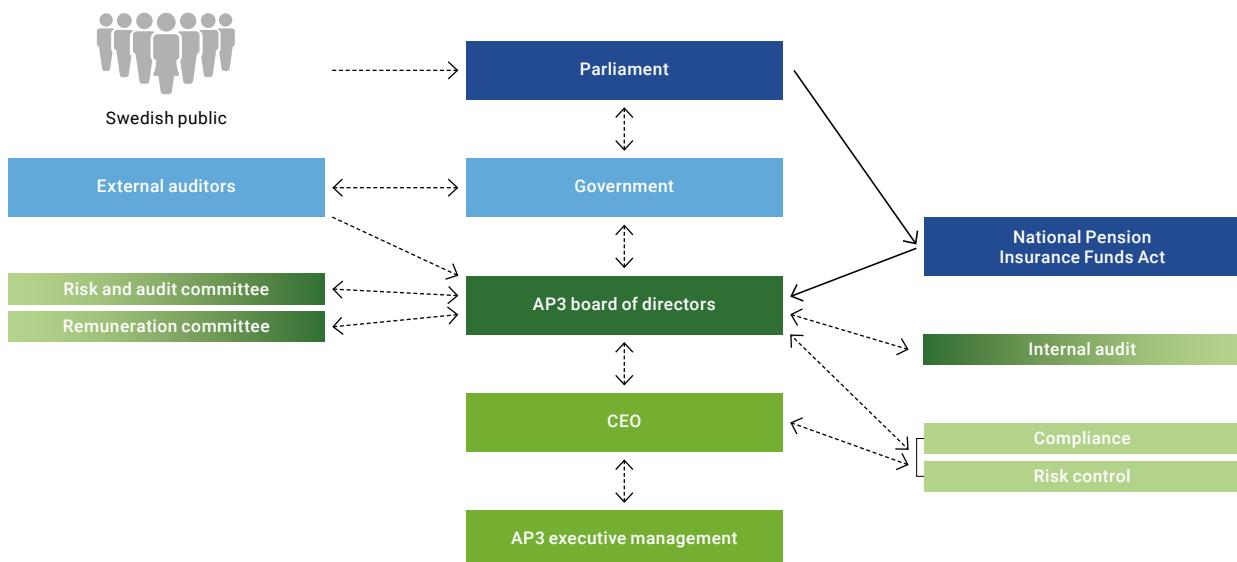


As of 2005, AP3 participates in an annual international survey led by the Canadian consultancy CEM Benchmarking. The survey compares AP3 with other international pension funds that have similar profiles. The most recent survey, from 2018, showed AP3's expenses to be 36% below those of international peers with a similar profile.

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 and administration, the work and remuneration of the board of directors, and a summary of board activities during the year.

How AP3 is governed



Government body governed by National Pension Insurance Funds Act

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 being independent from direct government control.

Board of directors

The AP3 board has nine members, all appointed by the government. Two directors are nominated by employee organisations and two directors by employer organisations. The government chooses the Chairman and Deputy Chairman from its own appointees. The Policy for Governance and Evaluation of the AP Funds stipulates that no director may hold board membership for more than 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 the National Pension Insurance Funds Act are set out in the board's work plan, which is approved annually by the directors.

The act also requires the board to approve an annual operating plan, which must contain guidelines for investing activities and for exercising AP3's voting rights in investee entities. It must

also contain a risk management plan. Beyond this, the board's primary tasks are to set operating targets, to recruit and monitor the performance of the CEO, to manage strategic documents, to make decisions on overall Fund strategy – including risk appetite, exposure and risk limits, budget approval and monitoring – and to monitor results of operations.

At every board meeting the directors discuss current asset allocations and any potential changes to the portfolio. 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 policy (formerly the risk management plan) sets the structure for internal control and risk monitoring. The board is tasked with 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 does not normally decide the Fund's actions in individual cases. Such matters are delegated to the CEO. However, the board will take any decision to exclude a company from the Fund's investment universe.

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

Review of the board of directors

The board conducts an annual review of its own performance. The 2019 review will be carried out by external consultants.

Board committees

The board has two committees – the risk and audit committee (formerly the audit committee) and the remuneration committee.

1 The risk and audit committee has a financial reporting advisory and oversight role on behalf of the board. It supervises financial reporting and monitors risk and the audit process. The Fund's auditors attend the audit committee meetings at which the final audit and audit management are discussed.

The risk and audit committee also oversees the effectiveness of internal control and risk management, lays the groundwork for board decisions on risk management and risk tolerance, monitors financial reporting, receives reports on financial control and follows up the Fund's annual analysis of operating risks. The committee is responsible for internal audit, making sure internal audits are performed and reported to the committee and to the board. It also monitors any observations or deficiencies identified during internal audits and ensures that they are addressed. Moreover, the committee acts to ensure auditors' impartiality and independence.

Malin Björkmo was appointed chairman of the risk and audit committee in June 2019 in place of Björn Börjesson, who left the board after eight years and also vacated his post as committee chairman. Johan Bygge and Peter Englund also joined the committee in June 2019.

2 The remuneration committee is tasked with ensuring that salaries and other remuneration are market-based, competitive, appropriate and reasonable. It also oversees and monitors the

implementation of government guidelines for senior managers at 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. The committee also prepares the remuneration framework for other employees on behalf of the board and evaluates the Fund's performance-based remuneration system.

In 2019 AP3 chairman Christina Lindenius joined the remuneration committee as its chairman, replacing Pär Nuder, who left the board after eight years and also vacated his post as committee chairman. Torbjörn Hållö and Elisabeth Unell remained as committee members.

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 indeed have remained so since AP3 was established in 2000. The government has an annual fund of SEK 100,000 to remunerate directors for committee work and other assignments. In 2019 the board used this fund to pay fees of SEK 26,520 to the chairman of the risk and audit committee and SEK 21,220 to other audit committee members, and fees of SEK 10,300 to each remuneration committee member (including the chairman). In December 2019 the government decided to increase remuneration levels for the Fund's directors.

Board administration in 2019

The board's calendar is governed by the 31 May date for the government's appointment of directors and the fact that the Fund's financial year runs from 1 January to 31 December. The annual accounts must be submitted to the government by the end of February to ensure sufficient time to review the accounts and evaluate the AP funds' performance by 1 June.

Hence, the board holds its foundation meeting in June and meets to approve the annual accounts in February. Six meetings are scheduled annually, and this was the case in 2019. One of the meetings is a longer strategy session, generally held in the first half of the year. Another meeting is held in conjunction with the foundation meeting in June.

At every board meeting, the directors receive a presentation on portfolio performance and risk utilisation, including data on individual asset categories and relative to the benchmark long-term static portfolio (LSP). The presentation includes executive management's outlook on market trends and investment strategy. Where necessary, the board approves changes in the allocation intervals of different asset categories.

The board also examines reports from the Chairman, board committees, the CEO and the compliance department. Quarterly reports and budget performance are presented at the first board meeting after the end of each quarter. These meetings also receive a report on the Fund's risk frameworks.

BOARD MEETINGS IN 2019

	Board meeting attendance (no. held)	Remuneration committee	Risk and audit committee
Pär Nuder, Chairman (left AP3 on 31 May)	2/2	Chairman until 31 May (1/1)	
Björn Börjesson, Deputy Chairman (left AP3 on 31 May)	2/2		Chairman until 31 May (1/1)
Christina Lindenius (Chairman from 1 June)	6/6	Chairman from 1 June (2/2)	
Peter Englund (Deputy Chairman from 1 June)	6/6		Member from 1 June (2/2)
Malin Björkmo	6/6		Chairman from 1 June (4/4)
Johan Bygge (director from 1 June)	4/4		Member from 1 June (2/2)
Magnus Emfel (director from 1 June)	4/4		
Hillevi Engström (director from 1 June)	2/4		
Ylva Hedén Westerdahl (director from 1 June)	4/4		
Torbjörn Hållö	6/6	Member (3/3)	
Kerstin Lindberg Göransson (left AP3 on 31 May)	1/2		Member until 31 May (0/1)
Mikael Sandström (left AP3 on 31 May)	2/2		
Elisabeth Unell	5/6	Member (3/3)	

Final accounts, exclusions and Polhem Infra

The board meeting to approve the annual accounts also discussed the final audit report and sustainability-related issues. The meeting approved new sustainability goals for 2019-2025 and addressed communications issues relating to the Fund's sustainability strategy. The meeting received information about the forthcoming AGM season and approved a proposal from the Council on Ethics of the Swedish National Pension Funds to exclude an investee company from AP3's investment universe. Also, the board approved changes to the Fund's investment limits to align with the introduction of new investment rules at the end of 2019. Directors listened to a presentation by Polhem Infra AB, the infrastructure investment company established by AP3 in partnership with AP1, AP2 and AP4. Furthermore, the board approved an allocation framework for asset management over the next few years.

Revised return target and sustainability analysis

At its strategy meeting the directors discussed the ALM analysis that the Fund undertakes once every three years. An ALM analysis evaluates whether the Fund's risk level is aligned with its investment mandate. It takes account of the financial status of the income pension system today and tomorrow and analyses the portfolio's projected impact on the system over multiple time frames with the objective of spreading risk evenly across different generations of beneficiaries. The analysis showed that AP3's current risk level is appropriate and effective. However, projected returns on both low-risk and high-risk investments have fallen in the last decade. AP3's

risk level now imputes a lower projected return than previously, even after allowing for the positive impact of the Fund's new investment rules on its ability to construct a diversified portfolio. The ALM analysis concluded that the Fund should reduce its real return target from 4% to 3.5%.

Another topic discussed at the strategy meeting was an internal project to identify climate risks in relation to stranded assets. The meeting also received presentations on the sustainability-related work carried out by AP1, AP2 and AP4. On the advice of the Council on Ethics, the board approved the exclusion from AP3's investment universe of several companies that sell cannabis for private use.

New directors, operating plan and governance documents

As of 1 June 2019, the government appointed four new directors – Johan Bygge, Magnus Emfel, Hillevi Engström and Ylva Hedén-Westerdahl – and appointed Christina Lindenius as Chairman and Peter Englund as Deputy Chairman. The June board meeting thus focused primarily on foundation matters. The National Pension Insurance Funds Act stipulates requires each AP fund to adopt an annual operating plan which must contain guidelines for investing activities and exercising voting rights in investee companies. The operating plan must also contain a risk management plan. In addition, the board must approve various governance documents relating to the organisation and how the board is organised. The annual June meeting also discusses the government's review of the AP funds.



Interim report, stewardship report and the Council on Ethics

At its August meeting the board discusses two matters that arise at this time every year: the interim report and the Fund's corporate stewardship in the prior year. At the 2019 meeting, John Howchin, chairman of the Council on Ethics of the AP Funds, presented the council's work.

The board's autumn meeting focuses on alternative investments, which include real estate, infrastructure, timberland and private equity. These are discussed both as a group and individually. The board also approves annual growth plans for the Fund's real estate companies, which are expanding rapidly and require capital when business opportunities arise. The board approved 2020 growth plans for Hemsö Fastighets AB, Trophi Fastighets AB, Fastighets AB Regio and Trenum AB. Also, the board endorsed governance guidelines for AP3's equity holdings in unlisted real estate companies. The proposed new portfolio structure was presented and discussed ahead of a final decision at a later meeting. The board also decided to enlarge the audit committee into the risk and audit committee. The committee already handled

risk-related matters, which meant only minor changes were necessary in its terms of reference.

New asset management principles and portfolio structure

At its December meeting the board always approves targets, asset management principles and investment guidelines for asset management, in line with the Fund's operating plan. In 2019 this process saw the Fund's real return target reduced from 4.0% to 3.5% and a new portfolio structure approved for 2020 and beyond. Under this structure, the five investment categories – equities, fixed income, alternative investments, other strategies and currencies – are fully aligned with the Fund's investment process and risk management. Other annual matters at the December meeting included the approval of the Fund's budget, remuneration matters and the CEO's presentation of the organisation and its skills need. The chairman of the risk and audit committee presented the auditors' report on the final audit that had been prepared during the autumn. A Ministry of Finance official attended the meeting and gave a presentation on the government's role in relation to the AP funds.

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 fund management systems, risk management and the internal control structure. The board of directors issues general policies and guidelines that are operationalised by the CEO. All steering documents are revised and approved annually. A core fund governance framework is the internal governance and control 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 and to ensure internal control remains fully independent from the rest of the organisation. This two-tier structure is reflected in access authorisation to AP3's systems.

Control functions

The Fund's two independent control departments are the Risk Control department, which monitors financial risk, and the Compliance department, which primarily addresses regulatory compliance and operating risk. The Risk Control department measures and evaluates risk arising from asset management operations and ensures that the Fund's risk framework and investment limits are observed. Limits apply at various levels to ensure that AP3 operates within the National Pension Insurance Funds Act and the rules set by the board and CEO. The Chief Risk Officer (CRO) in charge of risk control.

The Compliance Officer is in charge of making sure that AP3 operates within applicable regulatory frameworks and in conformity with internal policies, guidelines and directives. The compliance department ensures that the Fund complies with all legal and regulatory frameworks. It monitors changes in such frameworks and practices and is responsible for training Fund employees in this area. Moreover, the compliance department is in charge of monitoring action plans adopted following the annual review of operating risk. Training is provided on an ongoing basis.

Internal audit

The internal audit department 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 policies approved by the board of directors. Internal audit reports are processed by the risk and audit committee and reported to the board. In 2019 Ernst & Young conducted reviews of the Fund's process for major shareholding notifications and its control of financial instrument trading. The firm identified a number of areas for improvement that were then acted on.

Reporting

Analysis and independent control rely on daily reporting of risk and financial results for the entire portfolio. Executive management reports to the board of directors monthly (and more frequently if required). Any breach of investment limits is reported according to a set structure in which the risk and audit committee informs the board of directors. Significant breaches are reported to the board of directors immediately. The Compliance Officer and CRO report directly to the board if necessary. The compliance and risk control departments also report regularly to the risk and audit committee and the board in conjunction with committee and board meetings.

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. They express an opinion on the accounting records and the administration based on their audit.

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 a minimum of once a year and submit written reports on their audit of the annual accounts and final audit. The auditors meet the risk and audit committee twice a year. They are responsible for reviewing compliance with government guidelines on the employment terms and conditions of senior managers at the AP funds. The auditors report verbally to the Ministry of Finance once a year.

AP3 board of directors



CHRISTINA LINDENIUS

Chairman, elected in 2017

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. Deputy Chairman of Centrum för AMP. Member of board of Swedish International Olympic Committee and Försäkringsbranschens 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.



PETER ENGLUND

Deputy chairman, elected in 2013

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

Previously: Professor at Uppsala University and University of Amsterdam.

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



MALIN BJÖRKMO

Elected in 2016

Other current assignments: Corporate governance and financial regulatory affairs adviser. Director of Handelsbanken Fonder, Trygg-Stiftelsen, Itello and Euro Accident Livförsäkring. Deputy Chairman of Disciplinnämnden för Försäkringsdistribution.

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.

Lic Econ Stockholm School of Economics. Year of birth 1962.



JOHAN BYGGE

Elected in 2019

Other current assignments: Chairman of PSM International, Deputy Chairman of Nobina, director of Getinge, Lantmännen Ek Förening, adviser to EQT and SNS.

Previously: Deputy Group Controller at Ericsson. CFO and Deputy Managing Director of Electrolux, CFO of Investor, COO of EQT. Director of Ericsson, Electrolux, AP1, Swedish Central Bank's Jubilee Fund, I-Med Australia, 3 Scandinavia, ILA Vietnam. BSc. Year of birth 1956.



MAGNUS EMFEL

Elected in 2019

Other current assignments: Finance Engagement Manager, WWF International.

Previously: Positions at Social Venture Network Sweden, Swedish Forum for Sustainable Investment, SWESIF and Etikakademien. BSc Stockholm University and IHM Business School. Year of birth 1965.



HILLEVI ENGSTRÖM

Elected in 2019

Other current assignments: President of Södertörn Fire Protection Association. Director of Samhall.

Previously: Cabinet minister, Member of Parliament, ombudsman, detective inspector.



YLVA HEDÉN WESTERDAHL

Elected in 2019

Other current assignments: Director of Forecasting and Acting Director-General of National Institute of Economic Research. Director of Swedish National Debt Office.

Previously: Director of National Accounts at Statistics Sweden, Director of Macroeconomic Affairs Unit of Ministry of Finance, Director of Monetary Policy Research Unit at Swedish Central Bank.

PhD University of London. Year of birth 1965.



TORBJÖRN HÅLLÖ

Elected in 2018

Other current assignments: Economist at Swedish Trade Union Confederation.

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

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



ELISABETH UNELL

Elected in 2012

Other current assignments: Opposition leader on Västerås City Council. Director of Sobona, Transition Fund, Svenskt Vatten and Västerås Marknad & 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 of Vasakronan, Hemsö, Trenum, Handelsbanken, Svedab and Öresundsbro Konsortiet.

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.



PABLO BERNENGO

Chief Investment Officer,
Joined AP3 in November 2019

Previously: CEO Öhman Fonder, CIO Öhman Fonder, Portfolio Manager DNB/Skandia/Carlson Investment Management.

BSc. Year of birth 1974.



EVA BORIC

**Chief Financial Officer and
Chief Risk Officer**

Joined AP3 in August 2018

Other current assignments: Chairman of Collaborative Board of the AP Funds 2020.

Previously: Senior risk management positions at SEB. Development specialist Nasdaq OMX. BSc. Year of birth 1976.



LIL LARÅS LINDGREN

Head of Communications
Joined AP3 in August 2014

Other current assignments: Director of Urban Design Arkitektbyrå.

Previously: Senior communications positions at Ericsson, Attendo, Tetra Pak, Hemfrid, Swedish Travel and Tourism Council, Philipson Bil and communications consulting. Degrees from RMI Berghs and Uppsala University. Year of birth 1962.

Kerim Kaskal held the position of Chief Investment Officer (CIO) and was a member of the executive management committee until 31 May 2019.

Administration report 2019

Net result in 2019

Net profit was SEK 59,549 million (2,202), representing a return of 17.7% (0.7) before expenses and 17.6% (0.6) after expenses. Fund capital stood at SEK 393,696 million (340,668) at year-end, an increase of SEK 53,029 million from the prior year.

Real return, meaning return adjusted for inflation, was 15.6% (-1.4). The inflation rate in 2019 was 1.8% (2.0). Prior to 2020, AP3's long-term target was an average annual real return of 4%. In the last 10 years the Fund has achieved an average annual real return of 7.4% (7.4). The average annual nominal return for this 10-year period stands at 8.7% (8.5), which is higher than the 2.4% (2.7) increase in the income index, the benchmark used to keep pension entitlements in line with inflation. By outperforming its long-term target for real return, AP3 has thus made a positive contribution to the pension

system. A detailed analysis conducted during the latter part of the year resulted in the board of directors deciding to reduce the long-term target to 3.5% from 2020.

During the year AP3 made a net payment of SEK 6,520 million (6,773) to the pension system. Since 2009 the Fund has paid SEK 57,223 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 59,761 million (2,404) 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 4,583 million (4,860) on the net result. Net currency income consists of changes in the exchange rates of different currencies versus the krona.

Commission expenses totalled SEK 122 million (117) 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% (0.03) of average fund capital.

Operating expenses

Operating expenses were SEK 212 million (202), of which staff costs accounted for SEK 130 million (129). Operating expenses were 0.06% (0.06) of average fund capital.

Change in fund capital

SEK m	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fund capital at 1 Jan	340,668	345,239	324,375	303,031	288,332	258,475	232,956	214,106	220,829	206,539
Pension contributions	72,344	69,552	66,850	64,174	61,373	58,880	56,839	55,441	53,895	51,267
Pension disbursements	-78,678	-76,109	-73,999	-70,595	-66,142	-63,777	-63,488	-59,009	-54,922	-55,051
Administration fee to the Swedish Pensions Agency	-185	-216	-226	-216	-176	-224	-230	-220	-213	-257
Net result for the year	59,549	2,202	28,239	27,981	19,643	34,977	32,398	22,638	-5,483	18,331
Total fund capital at 31 Dec	393,696	340,668	345,239	324,375	303,031	288,332	258,475	232,956	214,106	220,829

Expenses in last five years

SEK m	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Commission expenses, SEK m	122	117	152	180	170	162	155	119	89	146
Operating expenses, SEK m	212	202	195	186	192	178	173	183	155	154
Asset management expenses, SEK m	334	320	347	366	362	340	328	302	244	300
Commission cost ratio, %	0.03	0.03	0.05	0.06	0.06	0.06	0.06	0.05	0.04	0.07
Operating cost ratio, %	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.08	0.07	0.07
Asset management cost ratio, %	0.09	0.09	0.10	0.12	0.12	0.12	0.13	0.14	0.11	0.14

Diversified risk exposure

In the interests of effective asset management and risk diversification, AP3 divides investments into six risk categories: equities; fixed income; credits; inflation; currencies; and absolute return strategies

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 from 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 capital. Exposure at year-end totalled 98.9% (103.7%) of fund capital.

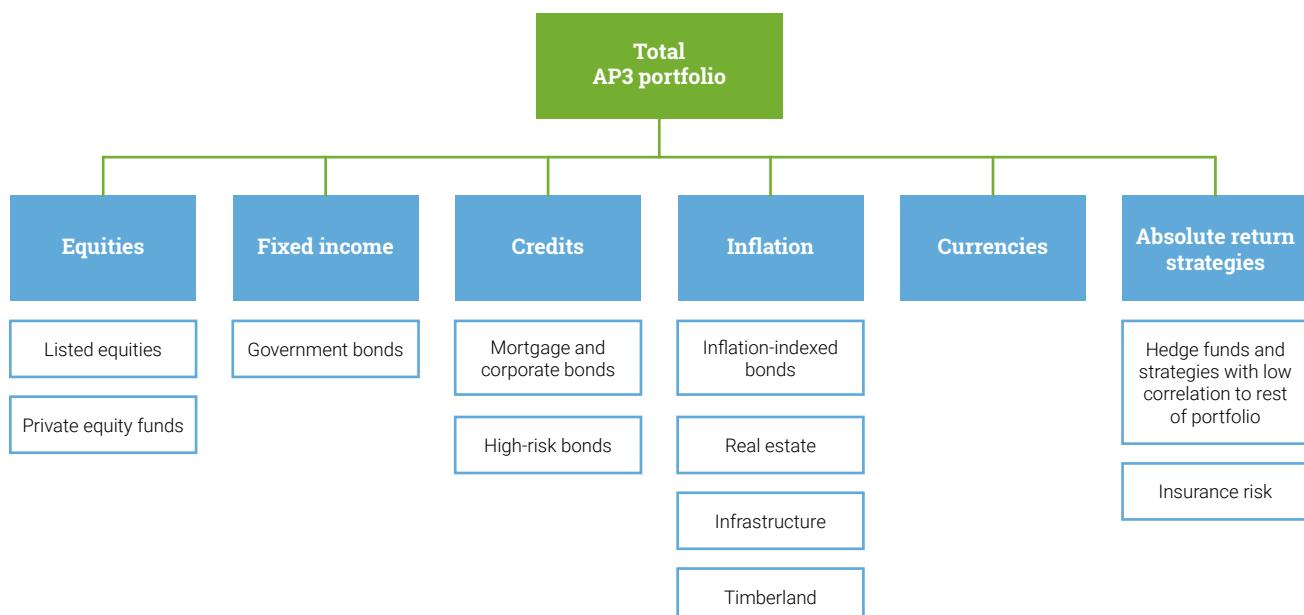
Risk exposure

Total portfolio risk is expressed using the value at risk¹ (VaR) metric. A VaR with a 95% confidence level connotes a 95% probability 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 1,383 million (2,747). VaR decreased steadily through the year, reflecting lower levels of market volatility. 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. AP3 deploys a diversification strategy between asset classes and geographic markets that also helped to reduce total portfolio risk during the year.

Starting from 1 January 2020, AP3 will use investment categories rather than risk categories as the basis for asset management. The aim of this change is to simplify and clarify the Fund's asset management by adapting it to a more complex world with stricter regulatory requirements.

Portfolio allocations in 2019 were across six risk categories



1) See glossary, p 78-79.

Return per risk category

All risk categories generated positive returns and contributed to the total return of 17.7% before expenses. The strongest performance was in equities, which delivered a return of 27.0%. The inflation risk category, which includes real estate investments, recorded a return of 14.2%.

Equities

Equities consist of investments in shares that are both listed and unlisted. These exposures are the largest source of risk for the AP3 portfolio. In 2019, equities delivered a return of 27.0% (-9.8) and contributed 11.8 (-4.3) percentage points to total return.

Exposure to this risk category varied from 46% to 49% during the year. In the listed equity portfolio, geographic weights at 31 December were: 28% Sweden; 32% North America; 14% Europe; 11% Asia; and 14% emerging markets. The listed equity portfolio generated a return of 29.1% (-8.7) in local currency terms.

Global equity markets performed very strongly in 2019, with the MSCI All Country World Index gaining 27% in dollar terms. The strongest performers were the US and Sweden, which both climbed 31% in local currency terms. The European equity market rose 28% in euro terms. Asian and emerging market equities rose by 19% in dollar terms.

The market for private equity funds continued to perform strongly. The portfolio's share of private equity funds totalled 3.9% at year-end. During the year, AP3 made investment commitments to 14 new funds. Private equity funds delivered a return of 18.9% (21.2) measured in kronor, of which currency effects accounted for 5.3 percentage points. These exposures contributed 0.7 percentage points to total return.



27.0

Return on equities, %

Fixed income

The fixed income risk category comprises investments in government bonds, government guaranteed bonds and supranational bonds. These holdings delivered a return of 2.4% (-1.1). Fixed income securities rise in value when yields fall, which explains the positive return for 2019. Bond yields fell farthest in the US and had an impact on overall return because AP3 has substantial investments in US government bonds. The fixed income risk category contributed 0.5 (-0.2) percentage points to overall return.

AP3 reduced exposure to fixed income securities during the year. Exposure was 17.1% (21.9) at year-end. These holdings were primarily of US government bonds. Some 27% (26) of fixed income investments were in bonds assigned the top AAA credit rating by Standard & Poor's. One hundred percent (96) were in bonds with AAA or AA ratings.

The National Pension Insurance Funds Act requires 20% of fund capital to be invested in low-risk bonds. These investments come under the fixed income, credits and inflation risk categories. AP3's holdings in this category averaged 30.1% (32.3) of fund capital in 2019.

Credits

Credits consist primarily of investment grade Swedish mortgage and corporate bonds but also include high-yield instruments with a lower credit rating. Credits generated a return of 2.8% (0.7), equating to a contribution of 0.1 percentage points (0.0) to total return.

AP3 has low exposure to credits due to their projected returns. Continued quantitative easing by central banks, notably the ECB, drove underlying yields down and reduced market spreads. The simultaneous growth of corporate debt is another reason why AP3's credit allocations remained low. Exposure to credits was 4.2% (5.1) at year-end.

Inflation

The inflation risk category focuses on "real investments" – those seen as a good hedge against inflation over time. It covers

investments inflation-indexed bonds, real estate, infrastructure and timberland. These assets generated a return of 14.2% (14.8), equivalent to a contribution of 3.8 percentage points (2.9) to overall return.



7.9

Real estate portfolio growth, SEK bn

Inflation-indexed bonds contributed 0.3 percentage points (-0.1) to total return and this portfolio had a market value of SEK 28.0 billion (23.6) 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. During the year the Fund's real estate investments recorded a return of 21.4% (22.2) in local currencies, equating to a contribution of 2.8 percentage points to overall return. 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 to make acquisitions in Finland and Germany. Trophi, which is wholly owned by AP3 and specialises in supermarket premises, made several small acquisitions in Finland and a larger purchase in Sweden. At year-end Trophi's portfolio had a market value of SEK 13.8 billion.

Regio, which was established in 2015 in which AP3 owns an 80% equity stake, also grew by acquisition and at year-end had a portfolio worth SEK 9.5 billion.

In April, AP3 joined forces with AP1 and AP4 to establish Polhem Infra, a company that invests in infrastructure-focused

private equity in Sweden. In November, Polhem Infra completed its first infrastructure investment, acquiring a 21% equity stake in Solör Bioenergi Holding AB, a provider of renewable district energy. AP3 also invested in a solar energy fund.

During the year, AP3 received forest assets and cash from a reorganisation of Bergvik Skog. The forest holdings were transferred to Gysinge Skog, a timberland company co-owned with Käpan.

In local currency terms, the Fund's timberland holdings generated a return of 9.5% (7.1), while infrastructure investments delivered a return of 0.4% (11.0).

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 to reduce risk in the total portfolio.

During the year the krona fell against all major currencies, though it rebounded somewhat during the fourth quarter. The depreciation was greatest against the UK pound, with the krona dropping by 10%. Against the dollar and euro, two important currencies for AP3, the krona fell by 6% and 4% respectively. The krona's weakness drove a positive return in currencies because a weaker krona makes foreign investments more valuable when measured in kronor.

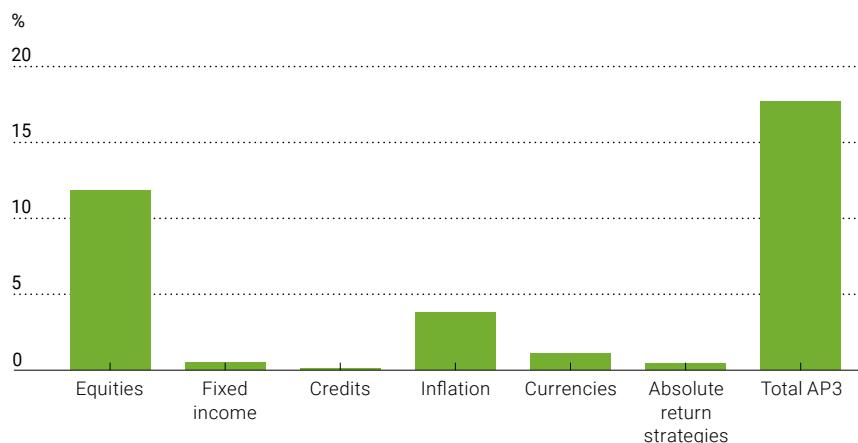
Currencies contributed 1.1 percentage points (2.9) to total return. Currency risk usually shows a negative covariance with equity risk and thus helps to diversify the portfolio. At year-end, currency exposure stood at 19.5% (17.7).

Absolute return strategies

Absolute return strategies cover management mandates with an absolute return target as well as investments in insurance-related instruments. Capital allocations to this risk category are limited; instead the board of directors sets a risk mandate within which the absolute return strategies 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 5.6 billion (5.3) at year-end and generated a return of 4.4% (-0.3) in local currency terms. Absolute return strategies generated total income of SEK 1,279 million (-2,276), equivalent to a contribution of 0.4 percentage points (-0.7) to the total portfolio.

Return per risk category



Risk categories

Exposure by risk category

31 Dec 2019	Equities	Fixed income	Credits	Inflation	Currencies ¹	Absolute return strategies ²	Total AP3
Exposure, SEK m	188,698	67,288	16,339	105,397	76,932	10,439	389,478
Exposure, %	47.9	17.1	4.2	26.8	19.5	3.0	98.9

31 Dec 2018	Equities	Fixed income	Credits	Inflation	Currencies ¹	Absolute return strategies ²	Total AP3
Exposure, SEK m	157,192	74,646	17,320	90,179	60,451	12,356	353,171
Exposure, %	46.1	21.9	5.1	26.5	17.7	4.1	103.7

Return per risk category

31 Dec 2019	Equities	Fixed income	Credits	Inflation	Currencies ¹	Absolute return strategies ²	Total AP3
Return, %	27.0	2.4	2.8	14.2	-	-	17.7
Contribution to total return, percentage points	11.8	0.5	0.1	3.8	1.1	0.4	17.7
Share of total return, %	66.8	2.8	0.8	21.2	6.4	2.1	100.0

31 Dec 2018	Equities	Fixed income	Credits	Inflation	Currencies ¹	Absolute return strategies ²	Total AP3
Return, %	-9.8	-1.1	0.7	14.8	-	-	0.7
Contribution to total return, percentage points	-4.3	-0.2	0.0	2.9	2.9	-0.7	0.7
Share of total return, %	591.8	-28.8	5.5	402.7	401.4	-89.0	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. Hence, return cannot be fairly measured.

Costs and expenditure

Responsible investment practices and high public trust in AP3 demand high cost-efficiency and stable spending patterns.

Cost-efficiency is a top priority for AP3, which monitors expenses in various ways:

Cost control

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

Having an annual cost budget gives oversight and control. Analysing any deviations that arise between budget and actual outcomes provides valuable information that is used to guide operational decision-making. Changes from year to year are a 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 the growth of the Fund's capital. This makes it important to measure costs in relation to fund capital using a metric known as the asset management cost ratio. Cost comparisons also facilitate benchmarking against other funds.

Cost one third lower than peers

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, risk 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 2018, showed AP3's expenses to be 33% lower than the benchmark group average in the prior five years.

Operating expenses

Operating expenses, meaning the internal costs of running the Fund, totalled SEK 212 billion (202) and corresponded to 0.06% (0.06) of fund capital. Operating expenses arise from the Fund's asset management, administration and operational management and are divided into staff costs and other administrative expenses. Staff costs include salaries, social insurance fees, pension contributions, staff training and recruitment. Staff costs account for the major share of operating expenses and in 2019 totalled SEK 130 million (129). The average number of employees was 58 (57).

Other administrative expenses consist of costs for office space, IT and market data. See Notes 6 and 7 for further information on operating expenses.

0.09

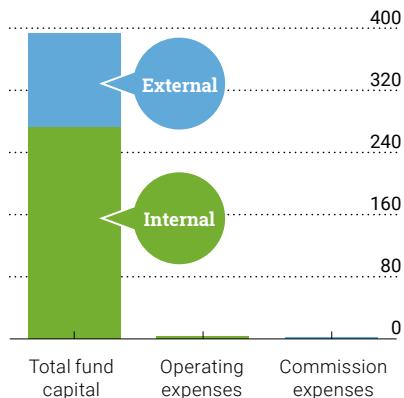
Expenses in relation to fund capital, %

Commission expenses

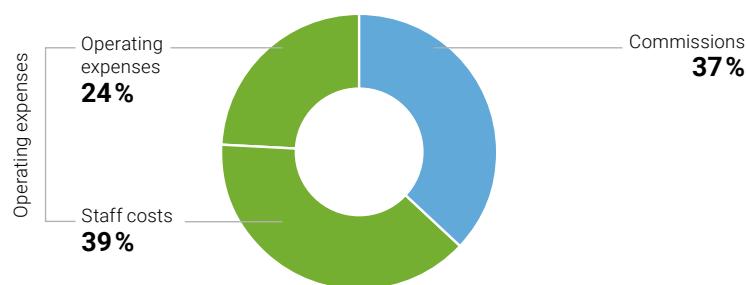
Commission expenses totalled SEK 122 million (117) and relate to costs directly attributable to the management of fund capital. They are recognised separately in income. In 2019 they stood at 0.03% (0.03) of fund capital. AP3 uses external management when it is more cost-effective than internal management or when, for various reasons, internal management is difficult. External management fees are charged as a percentage of the each portfolio's value, meaning that they are directly related to the size of the underlying capital. At year-end, 31% (26) of fund capital was externally managed. 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

Internally and externally managed fund capital

SEK bn



Breakdown of expenses



associated collateral, were SEK 13 million (14). In previous years, management fees for private equity funds not repaid prior to profit-sharing were recognised in commission expenses. As of 2019, these are recognised under net income from private equity. See Notes 4 and 5 for further information on operating expenses.

Other costs, fees and remuneration

Transaction costs relate to purchases and sales of securities and are the difference between the buying and selling rates. They are recognised as part of the asset's cost or as a deduction from sale proceeds. Brokerage fees also arise in relation to equity trading. They totalled SEK 48 million (54) in 2019. Transaction costs have an impact on the net results of all asset categories.

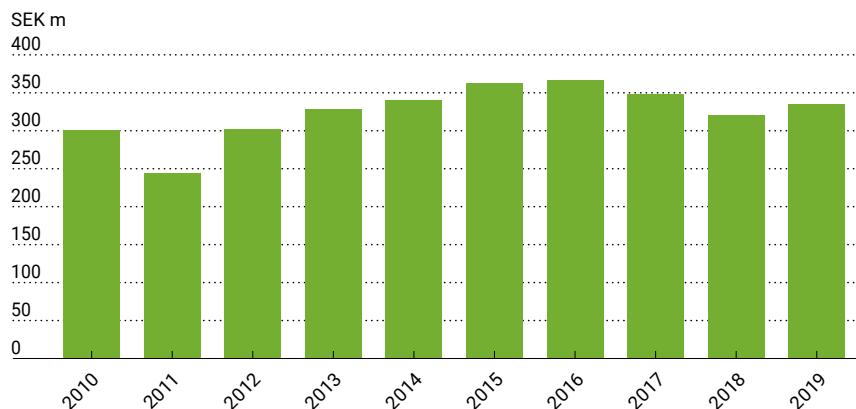
Performance-based remuneration is a type of profit sharing paid to external managers in return for investment returns

that exceed agreed goals. 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 197 million (144). See Note

5 for further information on performance-based remuneration.

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.

Asset management expenses 2010–2019



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. Sustainability-related risks are described as part of the Fund's sustainability reporting, see pages 5–39. The GRI Index is presented on pages 76–79.

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 that manages the Fund's 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 risks using asset liability management (ALM), and the board uses ALM analysis 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 multiple investment time frames – enables risks to be restricted.

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

Risk management

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

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.

Risk and audit committee

Has an advisory and oversight role on the board's behalf in the areas of financial reporting, accounting, internal control, risk management, compliance and audit. The 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 Risk Officer (CRO)

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

Compliance Officer

Responsible for ensuring that the Fund complies with relevant legal frameworks, internal rules and industry standards. The Compliance Officer is also in charge of identifying, managing and monitoring any compliance risks that arise in the Fund's operations, reporting to the CEO, the board of directors and the risk and audit committee.

Risk management committee (RMC)

Operating risks are managed by a risk management committee consisting of the CEO, CRO, CIO and Compliance Officer. 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 departments that have primary responsibility for risk and compliance with relevant regulations (first line), departments responsible for monitoring and control (second line) and those tasked with independent oversight (third line).

First line

The first line is the investment organisation, which includes all asset management department teams as well as supporting business functions. Responsibility for risk management thus exists 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.

Second line

The second line of defence comprises the risk control and compliance departments. The risk control process makes sure that the organisation and its relevant parts stay within stipulated limits and comply with

applicable restrictions and directives while managing identified risks satisfactorily. The compliance department ensures legal compliance and identifies and manages enterprise risk.

The two departments are both independent and are organisationally separate from parts of the organisation that make active investment decisions. The CRO has responsibility for the risk control department and reports to the CEO and, if necessary, directly to the board of directors. The Compliance Officer also reports to the CEO and, if necessary, to the board.

Third line

The third line of defence is internal audit, which in AP3's case is subcontracted to an external audit firm. The internal auditors are appointed by the board of directors through the risk management and audit committee and are independent from AP3 and its operating activities. They report to the board via the risk and audit committee. A review of internal audit is conducted every year on behalf of the risk and audit committee. Specific focus areas are proposed by internal audit itself, as well as by the risk and audit committee and control departments. The risk and audit committee then decides which focus areas the review will address.

AP3 categorises risk as follows:

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

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, compliance risk and reputation risk. Compliance risk is the risk of failure to conform with applicable external and internal rules and regulations. 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 steering documents, training, effective continuity planning and, where necessary, investments in organisational development.

The Fund conducts an annual evaluation to identify and evaluate all non-financial risks. The result of this process is presented to the risk and 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.

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 limit risk exposure as and when appropriate. The risk control and compliance departments 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 risk and audit committee and board of directors annually.

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
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 foreign exchange rates. 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 risk ¹ (VaR), tracking error, ¹ sensitivity analysis and stress tests.	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.
Credit risk is the general risk of incurring a loss due to the failure of a counterparty in a financial transaction to meet repayment obligations, regardless of the cause. It can be divided into issuer risk, counterparty risk and settlement risk.	
Issuer risk is the risk that the issuer of a financial security will default and be unable to repay the nominal amount on the maturity date.	AP3 limits issuer risk by 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.
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.	AP3 actively seeks to limit counterparty risk by selecting counterparties with a good credit rating. AP3 also requires counterparties to sign ISDA agreements ¹ that 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.
Settlement risk arises during settlement of financial contracts if the parties cannot fulfil their commitments simultaneously.	Where possible, AP3 eliminates delivery risks on currency transactions through CLS, ¹ a system for simultaneous settlement of transactions through an independent third party.
Liquidity risk is the risk that AP3 cannot make intended or necessary changes to the portfolio structure without incurring excessive transaction costs. Generally, the Fund's most liquid assets are equities and government bonds with a high credit rating. Corporate bonds, unlisted equity and real estate are usually less liquid.	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 buffer capital for the pension system.

Monitoring limits

The Fund's independent risk control department 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. 78–79.

Ten-year summary

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Income and flows										
<i>SEK bn</i>										
Net result	59.5	2.2	28.2	28.0	19.6	35.0	32.4	22.6	-5.5	18.3
Net flow to pension system	-6.5	-6.8	-7.4	-6.6	-4.9	-5.1	-6.9	-3.8	-1.2	-4.0
Fund capital at 31 Dec ¹	393.7	340.7	345.2	324.4	303.0	288.3	258.5	233.0	214.1	220.8
Return and expenses, total portfolio										
<i>%</i>										
Return before expenses	17.7	0.7	8.9	9.5	6.9	13.8	14.2	10.7	-2.4	9.1
Operating expenses	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.08	0.07	0.07
Commission expenses	0.03	0.03	0.05	0.06	0.06	0.06	0.06	0.05	0.04	0.07
Operating and commission expenses	0.09	0.09	0.10	0.12	0.12	0.12	0.13	0.14	0.11	0.14
Return after expenses	17.6	0.6	8.8	9.4	6.8	13.7	14.1	10.7	-2.5	9.0
Inflation	1.8	2.0	1.7	1.7	0.1	-0.3	0.1	-0.1	2.0	2.3
Real return after expenses	15.6	-1.4	6.9	7.6	6.7	14.1	14.0	10.7	-4.4	6.5
<i>SEK bn</i>										
Income (incl. commission expenses)	59.8	2.4	28.4	28.2	19.8	35.2	32.6	22.8	-5.3	18.5
Operating expenses	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2
Result after expenses	59.5	2.2	28.2	28	19.6	35.0	32.4	22.6	-5.5	18.3
Annualised nominal return after expenses										
<i>%</i>										
Five years (2015–2019)	8.5	7.8	10.5	10.9	8.4	8.8	9.3	1.9	0.8	3.2
Ten years (2010–2019)	8.7	8.5	6.1	5.7	5.7	6.8	6.5	6.7	4.2	4.1
Risk										
Risk (1-yr standard deviation) for total portfolio, %	4.2	5.4	3.5	6.2	7.0	4.7	4.9	5.3	9.2	7.0
Sharpe ratio	4.3	0.3	2.8	1.6	1.0	2.8	2.8	1.8	neg.	1.2
Risk (10-yr standard deviation), %	6.0	6.3	7.6	8.0	8.1	7.8	7.9			
Currency exposure										
% of total portfolio ²	19.5	17.7	15.0	17.5	22.8	24.4	20.4	22.0	19.3	11.3
External management										
% of total portfolio	31	26	25	29	31	33	35	36	35	41
Employees										
No. of employees at 31 Dec	58	59	57	57	51	57	53	56	57	56

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

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

Income statement

SEK m	Note	2019	2018
Income			
Net interest income	2	2,738	2,491
Dividends received		6,830	5,316
Net income from listed shares and investments	3	36,013	-11,676
Net income from unlisted shares and investments	4	7,166	9,029
Net income from fixed income assets		3,517	-679
Net income from derivatives		-964	-6,818
Net income from currencies		4,583	4,860
Net commission expenses	5	-122	-117
Total income		59,761	2,404
Operating expenses			
Staff costs	6	-130	-129
Other administrative expenses	7	-82	-73
Total operating expenses		-212	-202
Net result for the year		59,549	2,202

Balance sheet

SEK m	Note	31 Dec 2019	31 Dec 2018
Assets			
Shares and investments			
Listed	8, 19	181,800	137,256
Unlisted	9, 19	78,099	67,905
Bonds and other fixed income assets	10, 19	130,870	139,427
Derivatives	11, 19, 21	4,268	4,600
Cash and cash equivalents		2,082	1,005
Other assets	12, 21	5,488	7,836
Prepaid expenses and accrued income	13	1,028	1,083
Total assets		403,635	359,111
Fund capital and liabilities			
<i>Liabilities</i>			
Derivatives	11, 19, 21	1,438	1,713
Other liabilities	14, 21	8,443	16,673
Deferred income and accrued expenses	15	57	59
Total liabilities		9,938	18,444
<i>Fund capital</i>			
Fund capital at 1 Jan		340,668	345,239
Net payments to pension system	16	-6,520	-6,773
Net result for the year		59,549	2,202
Total fund capital		393,696	340,668
Total fund capital and liabilities		403,635	359,111
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 2019 on 21 February 2020. 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). 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 or apply IFRS 16.

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 units 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 Fund's index supplier. 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 accrues during the maturity period and is reported 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. Where AP3 has the right to dispose over cash collateral received, this is recognised in the balance sheet 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.

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 outperforms an agreed level that gives rise to profit sharing, are recognised as a deduction from net income for the relevant asset class in the income statement.

Management fees for unlisted shares and investments are recognised in cost and included in unrealised income.

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. Figures are shown in millions of kronor (SEK m) unless otherwise stated.

NOTE 2 Net interest income

SEK m	2019	2018
Interest income		
Bonds and fixed income assets	2,593	2,337
Securities lending, equities	49	63
Securities lending, bonds	74	65
Other interest income	22	26
Total interest income	2,738	2,491
Interest expense		
Other interest expenses	1	0
Total interest expense	1	0
Net interest income	2,738	2,491

NOTE 3 Net income from listed shares and units

SEK m	2019	2018
Income from listed shares and investments	36,061	-11,622
Brokerage fees	-48	-54
Net income from listed shares and investments	36,013	-11,676

NOTE 4 Net income from unlisted shares and units

SEK m	2019	2018
Net capital gain	3,255	1,213
Unrealised changes in value	3,912	7,816
Net income from unlisted shares and investments	7,166	9,029

Changes were made in 2019 to the recognition of management fees for unlisted assets. The prior year's figures in this note have not been changed and are in line with the former accounting policy. Items affecting comparability of SEK 11 million arise in relation to unrealised changes in value.

External management fees for unlisted assets are recognised in 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.

In 2019, SEK 344 million (296) was paid in management fees for unlisted assets, of which SEK 333 million (280) allowed for repayment. SEK 117 million (38) of management fees were repaid during the year, resulting in a charge to income from unlisted shares and investments of SEK 226 million (242).

NOTE 5 Commission expenses

SEK m	2019	2018
External commissions, listed assets	104	87
External commissions, unlisted assets	5	16
Other commission expenses incl. custodian bank costs	13	14
Total commission expenses	122	117

Performance-based fees of SEK 197 million (144) are not recognised in commission expenses. SEK 197 million (141) of this figure relates to listed equities and SEK 0 million (3) to unlisted shares and investments. Performance-based fees are recognised in net income for each asset class.

Changes were made in 2019 to the recognition of management fees for unlisted assets. The prior year's figures in this note have not been changed and are in line with the former accounting policy. Items affecting comparability of SEK 11 million arise in relation to unrealised changes in value for external management fees.

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 1 million (3).

1) See Glossary, p. 78–79.

Notes

NOTE 6 Employees

	2019		2018	
	total	female	total	female
Average number of employees	58	23	57	22
No. of employees at 31 Dec	58	23	59	23
No. in executive management at 31 Dec	4	3	5	3

Staff costs in SEK thousand, 2019	Salaries and remuneration	Variable remuneration	Pension plan expenses	of which salary sacrifice	Social security expenses incl. special payroll tax	Total
Chairman of the board, Christina Lindenius	86				27	113
Chairman of the board, Pär Nuder, left May 2019	50				16	66
Other directors	467				121	588
Total	603				164	766
CEO Kerstin Hessius	3,741		2,424	978	1,785	7,950
Executive management excl. CEO						
Pablo Bernengo, joined Oct 2019	717		258		288	1,262
Eva Boric	1,967		227		673	2,867
Mattias Bylund, left Aug 2019	1,244		394		487	2,125
Kerim Kaskal, left May 2019	1,042		621	265	478	2,141
Lil Larås Lindgren	1,325		485		534	2,344
Total executive management excl. CEO	6,296		1,985	265	2,460	10,740
Other employees	57,817	3,413	21,099	2,930	24,015	106,344
Total employees	67,854	3,413	25,507	4,172	28,259	125,034
Other staff costs						3,912
Total staff costs	68,456	3,413	25,507	4,172	28,423	129,712
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	19,950	2,060	23,577	104,098
Total employees	68,692	2,873	24,806	3,082	28,210	124,581
Other staff costs						4,084
Total staff costs	69,318	2,873	24,806	3,082	28,384	129,464

Note 6 continues

Board of directors

The government sets the remuneration of directors. As of 2000, annual fees of SEK 100 thousand are paid to the Chairman, SEK 75 thousand to the Deputy Chairman and SEK 50 thousand 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 2015.

Committees

The remuneration committee had three members in 2019. 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 risk and 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 2019 the CEO received taxable benefits of SEK 2 thousand (6). 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, Head of Business Support & Control and CRO, 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 0 (3) to SEK 24 thousand (19) in 2019. 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 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 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 2019 and gave employees in the asset management department the opportunity to receive performance-based remuneration of up to two months' salary on the fulfilment of specific agreed criteria. Sixty percent of variable remuneration is not paid until three years after the year in which it is earned. Employees in administrative departments have the chance to receive variable remuneration of one 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 3.4 million (2.9) in the 2019 accounts for variable remuneration contingent on fulfilment of agreed targets. This sum was equivalent to the payment of an average of 0.7 months' salary (0.6) in variable performance-based remuneration to each employee covered by the programme.

Sickness absence

Total sickness absence in 2019 was 1.7% (1.7). The figures were 0.5% (1.7) for male employees and 3.4% (1.8) for female staff.

Other information

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	2019	2018
Office rental cost	11	11
Communications and data costs	51	44
Services purchased	13	11
Other	7	7
Total other operating expenses	82	73

Services purchased include fees to auditors and in 2019 included fees of SEK 0.2 million (0.2) for consulting services ordered by the Government Offices.

SEK thousand	2019	2018
Audit assignments		
PwC	756	706
Other services by audit firms		
PwC	8	8
Total fees to audit firms	764	714

NOTE 8 Listed shares and investments

SEK m, fair value	31 Dec 2019	31 Dec 2018
Swedish equities	51,401	39,241
Investments in Swedish funds	-	1,068
Foreign equities	98,624	73,984
Investments in foreign funds	31,775	22,963
Total listed shares and investments	181,800	137,256

A schedule of the five largest Swedish and foreign equity holdings is shown on page 75. 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 investments

As of 31 December 2019, AP3's investment 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 2019	31 Dec 2018
Shares and investments in Swedish subsidiaries and associates	50,321	42,169
Shares and investments in foreign subsidiaries and associates	3,187	3,161
Other unlisted Swedish shares and investments	1,684	2,881
Other unlisted foreign shares and investments	22,907	19,694
Total unlisted shares and investments	78,099	67,905

Shares and investments in Swedish subsidiaries and associates

	Corporate identity number	Registered office	Number of shares	Share of equity/voting rights	Fair value	100% equity 2019	100% result 2019
Vasakronan Holding AB	556650-4196	Stockholm	1,000,000	25%	20,590	70,156	13,909
Hemsö Fastighets AB	556779-8169	Stockholm	70,000,700	70%	12,528	16,714	3,132
Hemsö Intressenter AB	556917-4336	Stockholm	25,000	50%	2,685		
Hemsö Norden KB	969769-2961	Stockholm	-	50%	361	721	145
Trophi Fastighets AB	556914-7647	Stockholm	1,000,000	100%	6,075		
Fastighets AB Regio	559013-4911	Stockholm	4,000,009	96%/98%	3,797		
Ellevio Holding 1 AB	559005-2444	Stockholm	10,000	20%	2,100		
Trenum AB	556978-8291	Gothenburg	500	50%	1,065		
Gysinge Skog AB	559164-0817	Falun	25,000	50%	812		
Polhem Infra KB	969789-2413	Stockholm	-	33%	309	926	-11
Polhem Infra AB	559183-3917	Stockholm	20,000	33%	0	0	-1
Aphelaria AB	559199-8173	Stockholm	50,000	100%	0	0	-9
Total shares and investments in Swedish subsidiaries and associates					50,321		

Shares and investments in foreign subsidiaries and associates

	Registered office	Number of shares	Share of equity/voting rights	Fair value
OMERS Farmoor 2 Holdings B.V.	Netherlands	149	100%/49%	3,187
Total shares and investments in foreign subsidiaries and associates				3,187

Five largest holdings in other Swedish unlisted shares and investments

	Registered office	Share of equity	Cost 2019
Verdane Capital VIII	Stockholm	15%	233
Verdane Capital IX	Stockholm	9%	232
Bergvik Skog AB	Falun	5%	280
Impilo AB Investment Pool 1	Stockholm	10%	228
Altor Fund IV	Stockholm	2%	226

Five largest holdings in other foreign unlisted shares and investments

	Registered office	Share of equity	Cost 2019
Innisfree PFI Secondary Fund 2 (ISF2)	London	18%	837
Mirova Core Infrastructure Fund II SCS	Luxemburg	8%	707
Hermes Infra Spring II	Guernsey	26%	671
RMK GAC	USA	100%	558
LLCP Co Investment Fund	USA	27%	386

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

NOTE 10 Bonds and other interest-bearing assets

Bonds and other interest-bearing securities by class of instrument

SEK m, fair value	31 Dec 2019	31 Dec 2018
Government of Sweden	8,302	6,644
Swedish municipalities	101	102
Swedish mortgage lenders	4,854	6,203
Other Swedish issuers		
Financial institutions	630	657
Non-financial institutions	14,461	19,756
Foreign governments	71,890	70,592
Other foreign issuers	27,353	32,546
Total	127,592	136,499
Fixed income funds	3,278	2,927
Total	130,870	139,427

Bonds and other interest-bearing securities by class of instrument

SEK m, fair value	31 Dec 2019	31 Dec 2018
Inflation-indexed bonds	28,006	23,565
Other bonds	88,915	102,672
Certificates	2,432	2,901
Unlisted promissory notes	8,238	7,362
Total	127,592	136,499
Fixed income funds	3,278	2,927
Total	130,870	139,427

SEK 2,955 million (8,860) 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 2019		31 Dec 2018		
		Positive fair value	Negative fair value	Positive fair value	Negative fair value	
Equity-related instruments						
Options, cleared	Held, buy	-	-	-	-	
	Held, sell	-	-	0	-	
	Drawn, buy	-	-	-	-	
	Drawn, sell	-	-	-	0	
Forwards		1	-6	14	-26	
Swaps		-	-11	0	-20	
Total		1	-17	14	-47	
- cleared		1	-6	14	-27	
Fixed income and credit-related instruments						
Options, cleared	Held, buy	-	-	-	-	
	Held, sell	-	-	-	-	
	Drawn, buy	-	-	-	-	
	Drawn, sell	-	-	-	-	
FRAs/forwards		7	-4	59	-55	
CDS		-	-	33	-	
Swaps		259	-684	742	-526	
Total		266	-688	834	-581	
- cleared		7	-4	59	-55	
Currency-related instruments						
Options, OTC	Held, buy	23	-	278	-	
	Held, sell	125	-	556	-	
	Drawn, buy	-	-35	-	-335	
	Drawn, sell	0	-35	-	-274	
Forwards		3,852	-664	2,918	-475	
Swaps		-	-	-	-	
Total		4,000	-734	3,752	-1,085	
Effect of netting		-	-	-	-	
Total derivatives		4,268	-1,438	4,600	-1,713	

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 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 2019	31 Dec 2018
Trade payables	17	360
Buybacks	927	1,147
Reinvested cash collateral	4,540	6,328
Other current receivables	4	0
Total other assets	5,488	7,836

NOTE 13 Prepaid expenses and accrued income

SEK m	31 Dec 2019	31 Dec 2018
Accrued interest income	635	776
Accrued dividends	98	85
Tax reclaimables	225	162
Prepaid expenses	59	48
Accrued premiums on equity loans	11	12
Total prepaid expenses and accrued income	1,028	1,083

NOTE 14 Other liabilities

SEK m	31 Dec 2019	31 Dec 2018
Accounts payable	13	12
Trade payables	2	314
Payroll taxes	1	1
Staff PAYE taxes	3	3
Buybacks	927	1,148
Cash collateral received	7,493	15,187
Other liabilities	5	7
Total other liabilities	8,443	16,673

NOTE 15 Deferred income and accrued expenses

SEK m	31 Dec 2019	31 Dec 2018
Accrued external asset management costs	34	35
Other accrued expenses	13	14
Variable remuneration incl. social security expenses	9	10
Total deferred income and accrued expenses	57	59

Forty percent of a payment of variable remuneration earned in 2017 was made in 2018. The outstanding balance will be paid in 2020. Forty percent of a payment of variable remuneration earned in 2018 was made in 2019. The outstanding balance will be paid in 2021. A provision for variable remuneration was made in 2019. Forty percent of this amount will be paid in 2020 and the outstanding balance in 2022.

NOTE 16 Fund capital

Net payments to the pension system

SEK m	31 Dec 2019	31 Dec 2018
Fund capital at 1 Jan	340,668	345,239
Paid-in pension contributions	72,344	69,552
Paid-out pension disbursements	-78,681	-76,110
Transfer of pension rights to the EU	-	-1
Settlement of pension rights	3	2
Administration fee to the Swedish Pensions Agency	-185	-216
Total net payments to the pension system	-6,520	-6,773
Net result for the year	59,549	2,202
Fund capital at 31 Dec	393,696	340,668

NOTE 17 Pledged assets, contingent liabilities and commitments

Pledged assets, contingent liabilities and equivalent collateral

SEK m	31 Dec 2019	31 Dec 2018
Pledged assets for buybacks		
Collateral received	5,467	7,475
Collateral pledged	927	1,148
Pledged assets for derivatives trading		
Cash collateral received	1,085	178
Cash collateral pledged	-	-
Loaned securities for which cash collateral received		
Loaned securities	7,492	15,191
Cash collateral received	7,495	15,187
Securities loaned against collateral in securities		
Loaned securities	71,919	52,779
Collateral received in securities	77,354	53,583

Outstanding commitments

SEK m	31 Dec 2019	31 Dec 2018
Unlisted equities	8,526	10,742
Real estate, infrastructure and timberland funds	2,740	4,423
Subscription commitments	11,500	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 2019

SEK m	USD	NOK	JPY	GBP	Other	Total
Shares and investments	68,800	622	12,925	10,910	57,425	150,681
Exposure to SEK-listed companies with foreign domicile	-	-	-	1,016	2,972	3,988
Bonds and other fixed income securities	80,442	642	-	8,525	2,216	91,825
Derivatives	-58	27	2	-23	-539	-591
Other investment assets	6,661	2	153	3,359	925	11,101
Foreign currency exposure, gross	155,846	1,293	13,080	23,787	62,999	257,004
Currency hedges	-119,215	1,386	-1,005	-18,757	-38,493	-176,085
Total currency exposure	36,630	2,679	12,075	5,030	24,506	80,920

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

NOTE 19 Financial instruments, price and valuation hierarchy

Investment assets per valuation category at 31 Dec 2019

SEK m	Level 1	Level	Level	Total
Listed shares and investments	181,800	-	-	181,800
Unlisted shares and investments	-	-	78,099	78,099
Bonds and other fixed income assets	122,600	-	8,270	130,870
Derivatives, positive market value	9	4,259	-	4,268
Total investment assets	304,409	4,259	86,369	395,037
Derivatives, negative market value	-9	-1,429	-	-1,438
Total	304,400	2,830	86,369	393,599

Investment assets per valuation category at 31 Dec 2018

SEK m	Level 1	Level	Level	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

Change of Level 3 assets 2018-2019

SEK m	Listed shares and investments	Unlisted shares and investments	Bonds and other fixed income assets	Derivatives	Total
Carrying amount at 1 Jan	-	67,905	7,631	-	75,536
Invested	-	6,255	4,405	-	10,660
Sold/repaid during year	-	-1,037	-3,764	-	-4,801
Realised change in value	-	1,161	-	-	1,161
Unrealised change in value	-	3,815	-3	-	3,812
Transfer from Level 1 or 2	-	-	-	-	-
Transfer to Level 1 or 2	-	-	-	-	-
Carrying amount at 31 Dec	-	78,099	8,270	-	86,369

Notes

Note 19 continues

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

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 during 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 2019. 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% (77) 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% (2.2). 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
2019	1,297	2,840	1,883	1,383	2,143
2018	1,025	2,930	1,918	2,747	1,966

1) The column shows VaR for equally weighted historical 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 foreign exchange 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 1,383 million (2,747) 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 historical market data dating back 360 days. Historical data is 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 historical 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. Historical data is equally weighted, meaning that every day has equal significance.

AP3's risk measured as VaR varied from SEK 1,297 million (1,025) to SEK 2,840 million (2,930) 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 52.

Daily value at risk (VaR) for the AP3 portfolio 2019



Note 20 continues

Exposure to credit risk at 31 Dec 2019 ¹		Credit rating				
SEK m		AAA	AA	A	BBB	<BBB ⁻²
Government bonds		27,702	72,573	-	-	-
Mortgage bonds		264	4,896	-	148	-
Corporate bonds		468	1,368	3,721	3,284	4,303
Deposits and buybacks		-	-	4,540	-	-
Derivatives, net		1,620	1,114	-	486	-
Gross exposure		30,054	79,951	8,262	3,917	4,303
Collateral received		-	439	646	-	-
Net exposure		30,054	79,511	7,616	3,917	4,303

Exposure to credit risk at 31 Dec 2018 ¹		Credit rating				
SEK m		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

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 20% of their fund capital in fixed income securities with low credit and liquidity risk. AP3's holdings in this category averaged 30.1% (32.3) of fund capital in 2019.

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

31 Dec 2019		Gross amount	Amount offset in balance sheet	Net balance in balance sheet	Offsetting of financial instruments per agreement	Collateral received	Net amount after offsetting	Other ¹	Total in balance sheet
Assets, SEK m									
Derivatives	4,260	-	4,260	871	1,085	2,303	8	4,268	
Asset repurchases	926	-	926	926	-	-	4,540	5,467	
Non-settled transactions	-	-	-	-	-	-	17	17	
Total	5,186	-	5,186	1,798	1,085	2,303	4,565	9,751	

31 Dec 2019		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
Liabilities, SEK m									
Derivatives	1,429	-	1,429	871	-	557	9	1,438	
Debt repurchases	927	-	927	926	-	1	-	927	
Non-settled transactions	-	-	-	-	-	-	2	2	
Total	2,355	-	2,355	1,798	-	558	11	2,366	

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

Notes

Note 21 continues

31 Dec 2018		Amount offset in balance sheet	Net balance in balance sheet	Offsetting of financial instruments per agreement	Collateral received	Net amount after offsetting	Other ¹	Total in balance sheet
Assets, SEK m	Gross amount							
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

31 Dec 2018		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
Liabilities, SEK m	Gross amount							
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.

NOTE 22 Related party transactions

This note seeks to explain how AP3's results and financial position are impacted by transactions and outstanding dealings, including undertakings, with related parties as defined in IAS 24. Parties related to AP3 are companies in which AP3 has a shareholding that gives it significant or decisive influence or in which AP3 employees hold leading positions. AP3 rents its office space from Vasakronan at market rates. See Note 6 for salaries and remuneration to AP3's board of directors and executive management.

Related party, SEK m	2019-12-31	2018-12-31
Vasakronan Holding AB		
Interest income	9	9
Rental cost of premises	-10	-10
Commitment to purchase, at Vasakronan's request, commercial paper issued by the company for a maximum total amount of:	4,500	4,500
Hemsö Fastighets AB		
Commitment to purchase, at Hemsö's request, commercial paper issued by the company for a maximum amount of:	5,000	4,000
Capital increases during the year	700	-
Hemsö Intressenter AB		
Interest income	96	88
Shareholder loans	1,470	1,470
Capital increases during the year	150	-
Trophi Fastighets AB		
Interest income	26	25
Shareholder loans	635	617
Commitment to purchase, at Trophi Fastighets AB's request, commercial paper issued by the company for a maximum total amount of:	2,000	2,000

Related party, SEK m	2019-12-31	2018-12-31
Ellevio AB		
Interest income	294	307
Shareholder loans	4,133	3,764
Trenum AB		
Interest income	16	11
Shareholder loans	1,783	1,512
Capital increases during the year	106	169
Gysinge Skog AB		
Capital increases during the year	802	5
Polhem Infra AB		
Capital increases during the year	0	-
Polhem Infra KB		
Capital increases during the year	312	-
Aphelaria AB		
Capital increases during the year	5	-

Signatures of board of directors and CEO

Stockholm, 21 February 2020

Christina Lindénus
Chairman

Peter Englund
Deputy Chairman

Malin Björkmo

Johan Bygge

Magnus Emfel

Hillevi Engström

Ylva Hedén Westerdahl

Torbjörn Hållö

Elisabeth Unell

Kerstin Hessius
CEO

Our auditors' report was submitted on 21 February 2020.

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 2019 financial year. The Fund's financial statements are included in the printed version of this document on pages 49–71.

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 2019 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 1–48 and 74–81. 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 2019 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 2019 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, 21 February 2020

Peter Nilsson <i>Authorised auditor</i> Appointed by the government	Helena Kaiser de Carolis <i>Authorised auditor</i> Appointed by the government
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Key financial data

Change in fund capital

Mkr	2019	2018	2017	2016	2015
Fund capital at 1 Jan ¹	340,668	345,239	324,375	303,031	288,332
Net flow to pension system	-6,520	-6,773	-7,375	-6,637	-4,944
Net result	59,549	2,202	28,239	27,981	19,643
Fund capital at 31 Dec	393,696	340,668	345,239	324,375	303,031

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

Market value per asset category

Mdkr	31 Dec 2019	31 Dec 2018	31 Dec 2017	31 Dec 2016	31 Dec 2015
Listed equities¹					
Sweden	48.8	37.3	44.5	40.3	34.2
Europe	23.0	17.3	26.9	23.7	29.2
North America	57.4	44.1	54.0	50.4	43.9
Asia	19.3	11.2	7.6	9.2	14.5
Emerging markets	24.9	18.3	19.8	15.0	11.2
Total listed equities	173.5	128.1	152.9	138.7	132.9
Fixed income¹					
Nominal	32.7	37.3	45.8	45.2	35.9
Eurozone	0.0	0.0	0.4	1.4	2.0
UK	8.3	8.2	9.0	9.3	8.5
USA	52.7	58.4	44.8	44.1	46.3
Asia	-	-	-	-	3.1
Inflation-indexed bonds	4.9	4.9	4.8	4.8	5.8
Eurozone	-	-	0.0	0.0	-
Japan	-	0.0	0.2	0.2	-
USA	23.8	19.0	15.8	15.5	13.0
Total fixed income	122.3	127.9	120.8	120.5	114.5
Alternative investments¹					
Real estate and infrastructure	Vasakronan	20.6	17.7	15.2	13.8
	Hemsö	17.1	14.0	11.8	10.1
	Farmoor	3.2	3.2	3.1	
	Regio	3.8	3.3	2.3	1.7
	Sagax	3.2	1.5	1.1	0.9
	Trenum	2.8	2.2	1.6	1.3
	Trophi	6.7	6.2	5.3	6.3
	Ellevio	6.2	6.1	5.4	5.2
	Polhem	0.3			
	Timberland and agricultural land	4.7	5.3	5.0	5.7
	International real estate funds ²	8.2	6.7	6.2	7.0
Total real estate and infrastructure	76.9	66.4	57.0	52.0	42.6
Unlisted equities		15.5	13.1	10.3	10.0
Other assets ³		5.6	5.3	4.1	3.0
Total alternative investments	97.9	84.7	71.4	65.1	55.5
Total	393.7	340.7	345.2	324.4	303.0

1) Cash used for position-taking in forwards has been divided among the relevant asset categories, 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

Namn	No. of shares	Share of equity	Share of voting rights	Market value, SEK m
Sagax AB	24,227,658	5.46	3.54	3,300
Volvo AB	18,723,159	0.88	0.48	2,939
Atlas Copco AB	8,737,480	0.71	0.25	2,914
Investor AB	5,271,203	0.69	0.42	2,689
Telefonaktiebolaget	29,890,548	0.90	0.53	2,438
LM Ericsson AB				

Fem största innehaven i utländska noterade bolag

Namn	No. of shares	Market value, SEK m
Apple Inc	883,391	2,428
Microsoft Corp	1,480,464	2,186
Amazon.com Inc	86,161	1,490
Alphabet Inc	116,815	1,463
Nestle SA	1,379,378	1,397

Ten largest recipients of brokerage fees in 2019 (alphabetical order)

- ABG Securities
- Bank of America
- Carnegie
- Citi
- Danske Bank
- DNB
- JP Morgan
- Nordea
- SEB
- UBS

Five counterparties that handled the largest volumes of AP3's fixed income trading in 2019 (alphabetical order)

- Citi
- Danske Bank
- JP Morgan
- Nordea
- SEB

Five counterparties that handled the largest volumes of AP3's foreign exchange trading in 2019 (alphabetical order)

- Barclays
- Citi
- Goldman Sachs
- JP Morgan
- SEB

Allocation of fund capital between internal and external management mandates at 31 Dec 2019

Mandate	Market value, SEK m	Share of fund capital, %
External discretionary mandates		
Equity mandates		
<i>Passive mandates</i>		
BlackRock Investment Management	Europe - Large cap	7,795
BlackRock Investment Management	Japan	13,044
BlackRock Investment Management	Asia-Pacific	6,233
BlackRock Investment Management	North America - Mid cap	7,859
<i>Enhanced mandates</i>		
BlackRock Investment Management	North America – Large cap	29,526
		64,458
		16%
Fund investments		
<i>Listed assets</i>		
Equity funds	26,315	
Fixed income funds	410	
Absolute return strategies and hedge funds	7,254	
<i>Unlisted assets</i>		
Private equity funds	15,502	
Infrastructure funds	4,771	
Real estate funds	383	
Timberland funds	4,721	
	59,356	15%
Internal management mandates		
Listed shares and investments	88,893	
Fixed income and credits	111,295	
Insurance-related risk	5,583	
Unlisted holdings in real estate companies	60,789	
	266,559	68%
Other assets and liabilities¹		
	3,323	1%
Total fund capital		
	393,696	100%

1) Consist primarily of cash and currency hedges.

GRI reporting

AP3 has a long-standing commitment to exercise environmental and social governance in investing activities. Responsible investment forms an integral part of the Fund's mandate and ESG is incorporated in investment analysis, corporate stewardship and engagement in the Council on Ethics of the Swedish National Pension Funds. AP3 also reports annually on 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 the AP funds' actions 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 engagement 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 AP3's sustainability reporting

The 2019 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 both the requirements and expectations of AP3's stakeholders and the Fund's own priorities, thus establishing a common view with regard to materiality. Some of the reported GRI indicators are incomplete. Going forward, the Fund intends to develop further its disclosures, data and procedures in relation to sustainability reporting. This GRI report has not been reviewed by a third party.

The GRI index shows where GRI disclosures can be found in the AP3 annual report 2019 (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	Countries where the organisation operates	AP3's sole office is in Stockholm. The Fund invests globally.
102-5	Ownership and legal form	AR p. 42-43
102-6	Markets served	AR p. 4-5, 38
102-7	Scale of the organisation	AR p. 62
102-8	Information on employees and other workers	AR p. 60-62
102-9	Supply chain	AR p. 16-17
102-10	Significant changes to the organisation and its supply chain	No significant changes occurred in 2019.
102-11	Precautionary Principle	AR p. 18-19, 37
102-12	External initiatives on sustainability to which the organisation subscribes or which it endorses	AR p. 35, 37
102-13	Memberships of associations	AR p. 35-37
Strategi		
102-14	Statement from senior decision-maker	AR p. 6-7
Etik och integritet		
102-16	Valuations, principles, standards and norms of behaviour	AR p. 15-16, 34-35
Styrning		
102-18	Governance structure	AR p. 35, 42-43
Intressentengagemang		
102-40	List of stakeholder groups	AR p. 76
102-41	Collective bargaining agreements	AR p. 63
102-42	Identifying and selecting stakeholders	AR p. 76
102-43	Approach to stakeholder engagement	AR p. 76
102-44	Key topics and concerns raised	AR p. 76

Disclosure		Page number/reference
Reporting practice		
102-45	Entities in the financial statements	AR p. 76
102-46	Defining report content and topic boundaries	AR p. 15, 34-35, 76
102-47	List of material topics	AR p. 76
102-48	Restatements of information	No changes
102-49	Restatements of financial accounts	No changes
102-50	Reporting period	1/1-31/12 2019
102-51	Datum of most recent report	February 2019.
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. 76-77
102-55	GRI content index	AR p. 76-77
102-56	External assurance	AR p. 76

GRI-indicator			Page number/reference
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, 15-16
Economic performance	201-1	Economic value generated and distributed	AR p. 8-11, 62
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. 34-35 and http://etikradet.se/etikradets-arbete/forebyggande-initiativ-en-viktig-paverkansform/korruption/
Anti-corruption	205-3	Incidents of corruption	No incidents of corruption occurred in 2019
GRI 305: Emissions			
Sustainability management approach	103-1, 2, 3	Explanation of the materiality of the topic, the management approach and evaluation of the management approach	p 17-19, 34-35
Emissions	305-1	Direct greenhouse gas emissions	AR p. 19
	305-2	Indirect greenhouse gas emissions	AR p. 19
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, 38, 62-63
Employment	401-2	Benefits provided to full-time employees	AR p. 38, 63
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. 38-39
Training and education	404-3	Evaluation and monitoring	AR p. 38
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. 34-35 and http://etikradet.se/etikradets-arbete/internationella-samarbeten-och-initiativ/protect-respect-remedy-manskliga-rattigheter/
Human rights	412-3	Investment decisions that include demands relating to human rights	AR p. 34-35 and http://etikradet.se/etikradets-arbete/en-systematisk-process/
GRI FS: Product portfolio			
Product portfolio	FS6	Percentage of the portfolio by specific region, size and sector	AR p. 5, 16-17
GRI FS: Active ownership			
GRI FS: Active ownership	FS10	Companies with which the institution has engaged on environmental or social issues	AR p. 34-35 and http://etikradet.se/etikradets-arbete/en-systematisk-process/
	FS11	FS11 Percentage of assets subject to positive and negative environmental or social screening	AR p. 34-35 and http://etikradet.se/etikradets-arbete/en-systematisk-process/

Glossary

(definitions of financial terms, and risk and return metrics, and relevant terminology)

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.

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.

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.

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.

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.

Brake

The pension system's automatic balancing mechanism, which ensures that disbursed pensions over time do not exceed pension system assets and hence guarantees that 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 Stockholmsbörsen, 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.

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.

Derivative

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 a 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.

Management expense ratio

Asset management costs in relation to average fund capital.

Insurance-related bonds

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

Age cohort neutrality

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

Global Goals

The UN Global Goals seek to make sustainable development a reality by 2030. The 17 goals aim to end extreme poverty, fight inequality and injustice, promote peace and justice and address the climate crisis.

Geothermal energy

A collective name for heating and cooling generated from the Earth's surface or sub-surface. Primarily relates to solar energy stored in the ground but also includes heat from the Earth's core.

Green Bond Principles

Guidelines stating that green bonds or loans must be used to finance climate-smart and ecologically 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.

Global Real Estate Sustainability Benchmark

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.

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 as a benchmark for indexing pensions provided that automatic balancing has not been activated.

Investment grade

Bonds which have a credit rating of BBB or higher. They usually carry a 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 as industry standards.

ISDA agreement

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

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.

Reference portfolio

A portfolio of different assets whose composition is designed to facilitate comparisons. It consists solely of listed equities and bonds.

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.

Quantitative models

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

Liquid assets

See illiquid assets.

LSP

The long-term static portfolio is a zero-cost portfolio against which AP3 benchmarks its asset management. The LSP 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%.

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 equities that are not listed on an official or public market.

Rating

Measure of creditworthiness 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.

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.

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.

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.

Government bonds

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

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.

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.

Tracking error

Measures 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 portfolio structure to keep this risk of loss at an acceptable level.

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.

Hedging

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

VC

Venture capital is equity capital made available to growing businesses in the early stages of their development.

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 = $\frac{r_p - r_f}{\sigma_{p,i}}$

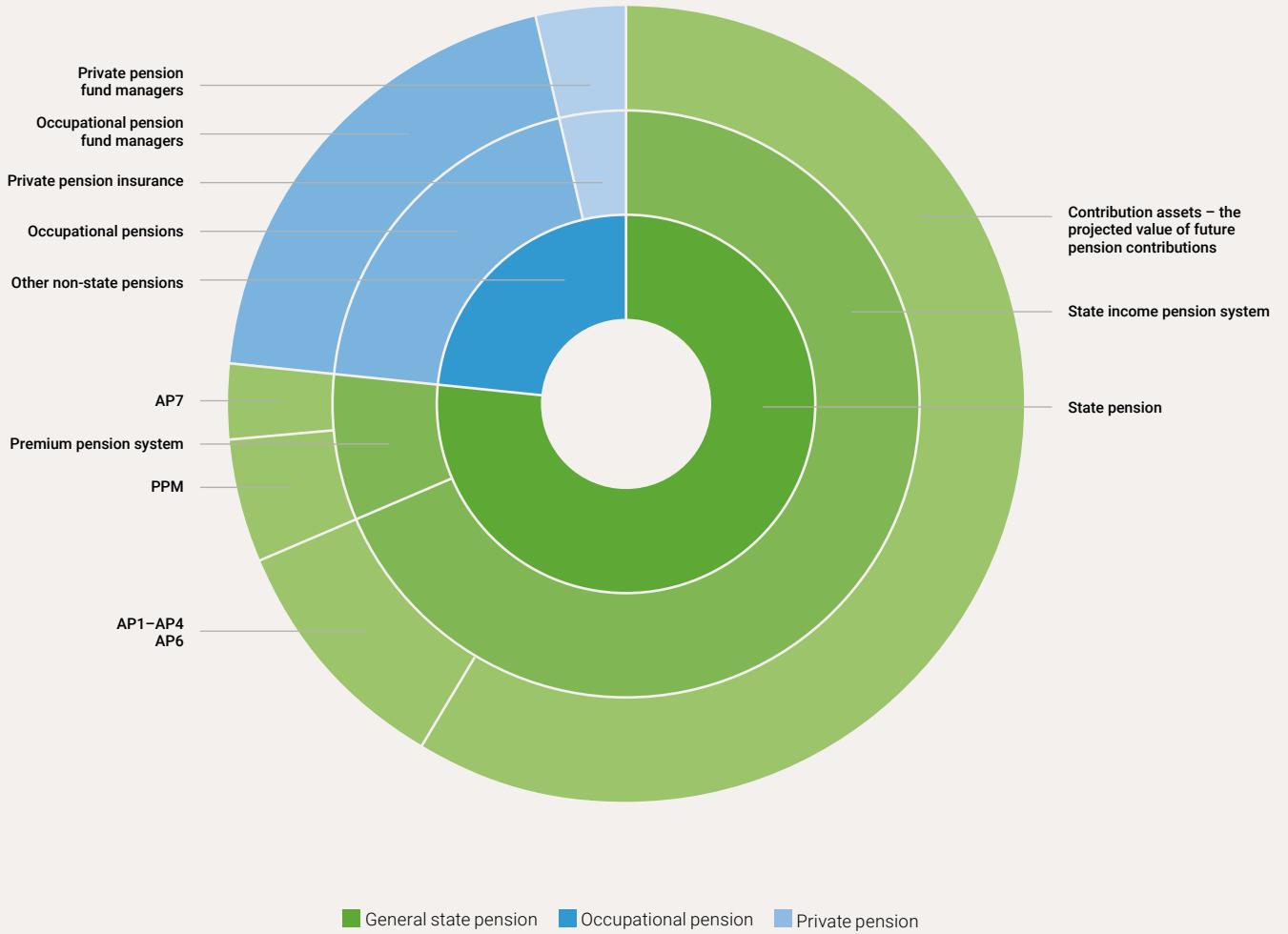
Sharpe ratio (risk-adjusted return)

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

Sweden's pension system capital exceeds SEK 14,000 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 pension and private pension plans. The system has total assets of more than SEK 14,000 billion.

Data is based on the Swedish Pensions Agency's Orange Report 2018.





The PET lamps at AP3's offices in Stockholm combine recycled PET plastic bottles with traditional weaving techniques from different corners of the world. The unique handmade lamps and their lampshades come from a project founded by the designer Alvaro Catalán de Ocón. petlamp.org/