

Annual Report 2017

AP4's long-term perspective, responsibility as owner and great commitment to sustainability create opportunities for high returns at a low cost.



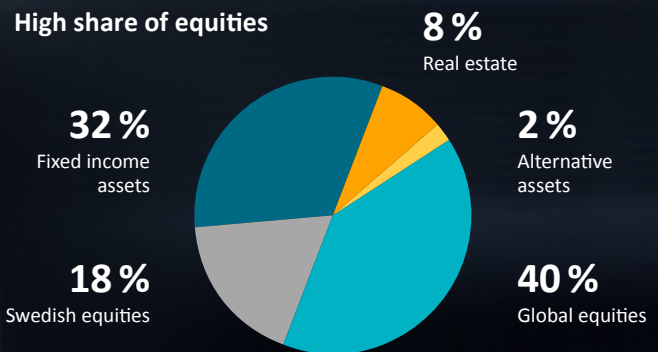
Strong earnings 2017

Total fund capital grew during the year to SEK 357 billion at year-end. Net result for the year totalled SEK 30 billion. The return was 9.1% after costs. During the year a net total of SEK 7.4 billion was paid out to the pension system.

Total costs amounted to 0.10%. Operating expenses were 0.06%, and commission expenses were 0.04% of average fund capital under management. Costs are very low in an international comparison.

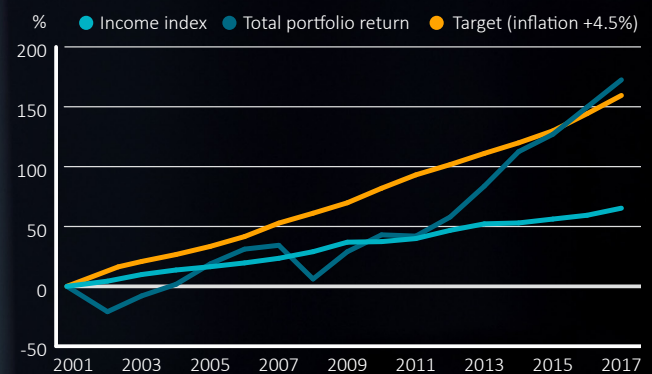
Investments in low-carbon strategies increased to 31% of AP4's global equity portfolio, which has lowered climate risk in the portfolio. AP4 took its active owner responsibility during the year by voting at Annual General Meetings of 73 Swedish and 896 foreign companies.

High share of equities



AP4's mission, to generate high real rates of return, warrants a high share of equities.

Outperformed return targets



Since the Fund's inception, AP4's return has exceeded both the inflation-adjusted return target and the performance of the income index, entailing that AP4 is making a positive contribution to the stability of Sweden's pension system.

357

SEK billion in
fund capital

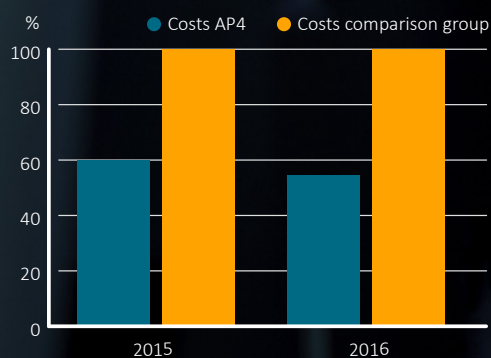
30

SEK billion in profit
for the year

9.1%

return after costs

Low costs



AP4's cost level is roughly half that of comparable pension funds in an international study.

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The Fourth Swedish National Pension Fund's (AP4) annual report summarises AP4's management during 2017. The report is complemented with AP4's Sustainability and Corporate Governance Report, the AGM Season Report and the Council on Ethics of the AP Funds Annual Report. Together these reports describe the work conducted by AP4.

The Global Reporting Initiative (GRI) publishes international guidelines for sustainability reporting that are used by companies and organisations around the world. AP4 reports in accordance with the GRI Sustainability Reporting Standards (SRS). The GRI Index can be downloaded at www.ap4.se.

AP4 in brief

AP4's mission is to contribute to the financial security of current and future pensioners in Sweden by managing part of the national pension system's buffer capital. AP4's long-term perspective, responsibility as an owner and strong commitment to sustainability create opportunities for high returns at a low cost. In this way AP4 works for more secure pensions.

AP4 is a long-term investor

The Swedish pension system's need of payments from the AP Funds stretches over a very long period of time, entailing that AP4 can invest with a very long-term perspective. This provides unique opportunities to be resilient and manage volatility for the benefit of higher returns. Some of AP4's best investments were made following the stock market downturn in 2008, when many other pension funds were forced to sell. Another example of AP4's long-term investment horizon is Rikshem, an unlisted real estate company that owns rental apartment buildings and properties for public use. AP4 owns 50% of Rikshem and co-founded the company for the purpose of creating a long-term and effective investment in these types of properties. Through long-term ownership we also gain a wealth of knowledge about the companies we own and can wield influence as an owner.

Climate & Environment part of sustainability focus

AP4 believes that a sustainability perspective is a prerequisite for long-term success in asset management. It is for this reason that AP4 always integrates sustainability, with focus on the climate and environment, in its investment processes. In this way we can achieve well balanced risks, capitalise on business opportunities, and achieve a high return over time. AP4 was early in reducing climate risk in its equity portfolio. By investing in companies with lower greenhouse gas emissions, AP4 has cut its carbon footprint in half compared with the market index. These low-carbon

strategies are pursued with equally high or better anticipated returns than the index. At year-end these investments had increased to 31% of AP4's global equity portfolio. AP4's goal is to further increase the allocation of Climate & Environment investments. It is our way of supporting sustainable development and growth while contributing to the security of current and future pensions.

AP4 takes responsibility as an active owner

Being a major shareholder on the Stockholm Stock Exchange conveys both opportunities and responsibility. AP4 takes its responsibility as an active owner by engaging in close dialogue, taking a stance on important issues, and communicating clear expectations to boards and managements of the companies that AP4 invests in. For AP4, active ownership responsibility has long been a guiding principle. AP4's first owner policy was drafted back in 1986, and AP4 participated in the formation of Sweden's first institutional nominating committee, for Volvo, in 1993. Ten years ago AP4 joined together with AP1, AP2 and AP3 to form the Council on Ethics of the AP Funds as a means of exerting greater international influence as a responsible owner. In 2017 AP4 exercised its ownership influence by voting at the Annual General Meetings of 73 Swedish and 896 foreign companies. Ahead of the 2018 AGM season, AP4 is participating on 31 Swedish nominating committees.



969

Number of AGMs that
AP4 voted at in 2017



Key ratios for AP4's operations	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Profit for the year, SEK bn	30.1	30.5	20.1	40.2	37.0	23.4	-1.6	21.2	34.9	-43.5
Net flow to national pension system, SEK bn	-7.4	-6.6	-4.9	-5.1	-6.9	-3.8	-1.2	-4.0	-3.9	0.9
Fund capital at year-end, SEK bn	356.6	333.9	310.0	294.9	259.7	229.6	210.0	212.8	195.7	164.7
Total return before costs, %	9.2	10.1	6.9	15.8	16.5	11.3	-0.7	11.0	21.6	-20.8
Total return after costs, %	9.1	10.0	6.8	15.7	16.4	11.2	-0.7	10.9	21.5	-21.0
Operating expenses as % of assets under management	0.06	0.06	0.06	0.07	0.08	0.08	0.08	0.09	0.10	0.08
Commission expenses as % of assets under management	0.04	0.04	0.04	0.04	0.04	0.02	0.01	0.01	0.01	0.03
Total costs (operating expenses & commission expenses) as % of assets under management	0.10	0.10	0.11	0.11	0.11	0.10	0.10	0.10	0.11	0.11

The AP Funds manage the national pension system's buffer capital

AP4, together with AP1, AP2, AP3 and AP6, has a shared mission to manage the national pension system's buffer capital, generating a high long-term return and maximum benefit for current and future pensioners.

The environment and ethics are to be taken into account without diminishing the goal for maximum returns. The AP Funds' operations are regulated by The National Pension Insurance Funds (the AP Funds) Act (Lag (2000:192) om allmänna pensionsfonder (AP-fonder)). According to this law, the AP Funds' boards and operations shall not be steered by government directives or by business policy or economic policy interests.

A unique national pension system

Sweden has a unique pension system that has attracted interest from around the world because it is generation-neutral and funded over time.

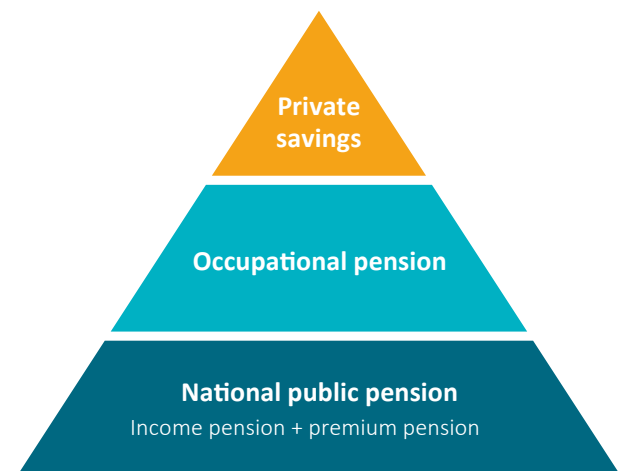
The foundation of the pension system is the national pension, which consists of income pension and premium pension. Income pension is a pay-as-you-go system where the year's pension contributions paid by the actively working population are used to pay pensioners the same year. Premium pension is a separate part of the national pension where earned contributions are saved in the individuals' own names. Pension savers have a say themselves in which funds their money will be invested in, and AP7 is the default alternative.

As a supplement to this, many actively working people are entitled to an occupational pension through their employers, and private savings are also common.

Bridging the generation gap

From 2009 through 2017, AP1, AP2, AP3 and AP4 each paid out SEK 44 billion to the Sweden's national pension system. These payments from the AP Funds have been made in response to

The components of Sweden's pension system



Swedish pensions come from the national pension system, supplemented by occupational pensions and private savings.

demographic factors, such as the large number of people born during the 1940s who are now pensioners. Consequently, people who are actively working today are paying in less money to the system than what pensioners are receiving in pension benefits. The difference is covered by AP1, AP2, AP3 and AP4. The pension system has been designed specifically for this purpose.

From 2009 through approximately 2040, paid-out pensions are expected to exceed paid-in contributions. During most of this time, the returns generated by the AP Funds are expected to cover the deficit that arises.

The pension system's strength affects pensions

The pension system's strength is measured as the system's assets in relation to its pension obligations.

If the pension system's liabilities become larger than its assets, an automatic balancing is activated. As a result of this balancing, income pensions will be lower as long as the system's assets are lower than the pension obligations. Such was the case in 2010, and it will take until 2018 before the reduction in pensions carried out in 2010 will be recovered.

The favourable returns generated by the AP Funds and the increase in the AP Funds as a share of the pension system's assets from 10% upon their inception in 2001 to 15% at year-end 2016 have contributed to the recovery of the pension system's strength.

Government evaluation positive

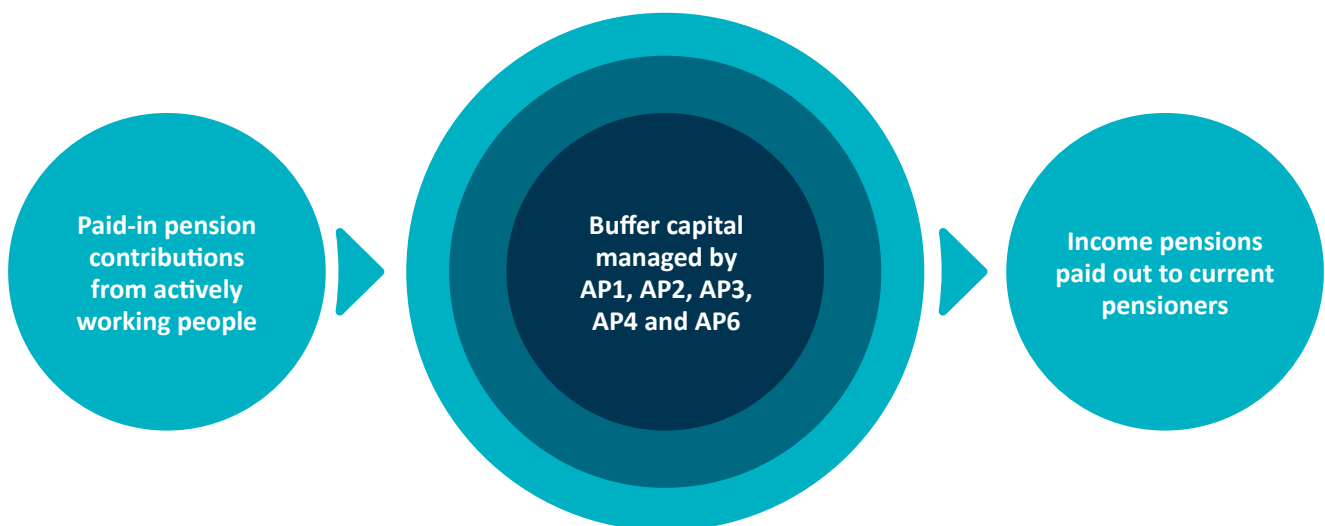
The Swedish government's annual evaluation showed that the AP Funds made a positive contribution to the pension system's long-term funding in 2016 and have also done so since the inception in 2001.

A study performed by the independent firm CEM Benchmarking shows that AP1, AP2, AP3 and AP4 are cost-efficient compared with a selection of foreign pension funds with similar missions and size. The government's evaluation underscores the importance of continued work on achieving high cost efficiency.

The government has a positive view of the sustainability work conducted by the AP Funds and the Council on Ethics of the AP Funds. This sustainability work has received numerous awards both in Sweden and internationally. The government believes that the issues are important and that this work should continue with undiminished intensity.

The government considers it to be positive that in 2016, AP1, AP2, AP3 and AP4 increased their focus on collaboration between the funds, which may contribute to greater cost efficiency without any negative impact on the funds' independence or on the diversity of their asset management models.

The AP Funds' balancing of income pensions



The AP Funds' assets under management make up the buffer of Sweden's pension system. The funds reduce the system's sensitivity to changes in Sweden's economic and demographic development over time.

Letter from the CEO

Looking back on 2017 we can confirm it was an eventful year, both for the world's capital markets and for AP4's internal work. AP4 has a strong organisation that has delivered good results. At the same time, we are constantly facing new challenges and needs for development in order to continue being a first-rate asset manager. Toward this end, in 2017 AP4 began a broad development initiative that will continue for several years.

Continued strong results

The economic recovery that started in 2016 broadened further in 2017. Owing to companies' greater willingness to invest in parallel with continued strong household consumption, corporate earnings developed considerably better than the market's expectations. This was reflected in favourable returns in the global equity markets. Interest rates during the year were essentially unchanged at extremely low levels. Fixed income investments therefore generated low yields in 2017, as expected.

Against the background of the generally favourable performance for the world's equity markets, AP4 posted strong earnings for 2017 with a return of 9.1% after costs, which corresponds to a net result of SEK 30.1 billion.

However, the return for a long-term investor like AP4 is measured over considerably longer time horizons than a single year. AP4 has delivered an average annualised return of 7.3% over the last ten years and 6.1% since its inception in 2001. For both time periods this exceeds AP4's long-term target of a 4.5% real return on an annualised basis as well as the performance of the income index. AP4 has thereby contributed to the stability of the pension system — an achievement that was also confirmed by the government in its annual evaluation for 2016.

The historically strong earnings for all of the AP Funds have made a significant contribution to the current strong position of

Sweden's income pension system. The buffer funds have grown to account for 15% of the pension system's asset base at year-end 2016, compared with 10% at the system's start.

Lower anticipated returns

Global economic growth is currently favourable, and it broadened and strengthened step by step in 2017. In the near-term we do not see any immediate factors that would change this picture dramatically.

"Looking forward, the AP Funds will face significant challenges in delivering returns at levels that we experienced during the last ten years."

Looking forward, however, the AP Funds will face significant challenges in the coming ten-year period to deliver a return that is in parity with the return levels we experienced during the last ten-year period.

This is due, among other things, to the imbalances that have been created by the exceptional monetary policies — with extremely low interest rates and large liquidity injections — that have been pursued in essentially all of the major developed countries. These policies entail, in addition to low or even negative anticipated returns on fixed income investments in the future, that valuations for most other asset classes appear challenging. Combined with a high level of debt, there is a risk that a future normalisation of monetary policies will lead to lower anticipated returns as well as greater turbulence in the financial markets.

In view of the fact that the income pension system today has a more robust financial position today than at its start in 2001,



combined with an expectation for lower returns going forward, ahead of 2018 we have revised the Fund's return targets. The very long-term target (40 years) has been revised downward from a 4.5% real return on an annualised basis to 4%. Owing to the low expected return during the coming ten-year period, we have also complemented the long-term target with a medium-term target of an average 3% real return on an annualised basis for the coming ten-year period. We regard these new targets as ambitious, and achieving them will require adept asset management by AP4.

Future challenges

In our main scenario, growth will remain at a relatively low level in developed countries, depending on factors such as a necessary normalisation of monetary policy, a generally high level of debt, demographic developments and weak political decision-making initiative. We also see a relatively high likelihood for more negative scenarios. Today there are political tendencies toward greater

regional tensions, protectionism with an undermining of trade agreements, and declining confidence in supranational institutions. If these tendencies strengthen and gain a stronger footing, it may have significant negative consequences for long-term economic growth.

At the same time there is also scope for more positive scenarios. The global economy is broad and favourable at present. After substantial problems caused by the financial and Eurozone crises, Europe's economies are beginning to strengthen in general. If the political decision-makers can take advantage of the buoyant economies across a broad front to make necessary structural reforms and return to the promotion of free trade, it could lay the foundation for a new optimism, increased willingness to invest, improved productivity and heightened structural growth potential.

The power of change afforded by artificial intelligence (AI), robotics and automation is also beginning to affect countries'

economies to an ever-greater extent. The map is being redrawn quickly, and traditional definitions of sectors, value chains, business models and the distinction between products and services are changing at a rapid pace. This is also affecting trade patterns and nations' comparative strengths. AI and robotics have the potential to make significant long-term improvements in productivity in the same way that industrialisation did so during the previous century. Together with structural reforms, this can serve as a vital tool for developed countries to manage their demographic challenges.

"AI and robotics have the potential to make significant long-term improvements in productivity in the same way that industrialisation has done."

However, one should not underestimate the transitional problems that a rapid structural change brought about by AI and robotics may give rise to. If this shift cannot be managed in a socially acceptable manner and with a reasonable distribution of productivity gains, there is an overhanging risk that we will see periods of significant political tension and social unrest.

In many emerging countries the prospects for growth look considerably better than in the developed countries. The demographic development is favourable and the productivity development is high. Social welfare systems are being built up, and populations have also seen a rise in prosperity across a broad front. The focal point in the global economy is shifting at an accelerating pace from what we today define as the developed countries to emerging countries, especially in Southeast Asia.

Development of the investment operations

To prepare ourselves for challenges of the type described above, during the year we conducted a review of how we should work with our investment portfolio in an overarching and long-term sense. Our ambition is to build further upon our historically successful asset management platform in a way that makes us ready to meet the demands that a rapidly changing world puts on us.

As a buffer fund in Sweden's pension system, AP4 has greater prospects than most other investors to take a very long-term approach in its investment work. In its investment rules AP4 also has a degree of freedom to build an effective investment portfolio with a good balance between diversification and focus on areas in which we have comparative strengths. Moreover, our size gives us economies of scale without for that matter being cumbersome.

During 2017 we further developed our joint-fund investment philosophy. We also implemented a new, overarching portfolio and decision-making structure for our management. We have adhered to two guiding principles in our development work. The first is to start from and build further upon the strengths that AP4 has built up over the years, and the second is to establish a framework and way of thinking that gives us the opportunity to fully capitalise on the unique conditions that we have as a buffer

fund in Sweden's pension system.

A central feature in the changes that have been made has been to complement AP4's historical strength in fundamental analysis and assessments of individual investments with a stronger approach to the overall investment portfolio. Our ambition is also to broaden and strengthen our ability to generate investment opportunities with a long- and medium-term horizon.

For these purposes the organisation has been developed, and resources and competence have been added.

New sustainability policy with stronger focus on climate and environment

Several of the most fundamental challenges that countries around the world must together find solutions to are coupled to sustainability, sustainable energy supply, and how to make Earth's resources last for a rapidly growing population. In a relatively short period of time we have gone from a small world on a big planet to a large world on a small planet.

In the international investor community AP4 was early to conclude that environmental and climate challenges will have a major long-term impact on investments' return potential and risk. As early as 2012 we began developing and investing in accordance with low-carbon strategies. AP4 also became a significant investor in green bonds at an early stage and has thereafter actively supported development of this market. In this context I want to mention Vasakronan, the real estate company that is jointly owned by AP1, AP2, AP3 and AP4, and which is a leader at sustainability in the property sector and a model internationally.

Although AP4 is a comparatively large institutional investor, we represent only a very small part of the total investor community. To make a greater impact than what would be warranted by only our own assets under management, we are making a concerted effort to activate capital also from other investors for sustainable investments. For example, AP4 is a co-founder of the Portfolio Decarbonization Coalition (PDC), which to date has mobilised more than USD 800 billion for low-carbon investments. As another example, AP4 has participated in designing indexes and has been the first investor in newly started funds that other investors have also been able to invest in.

"Climate change and other environmental and resource-related problems pose significant risks for long-term economic growth."

Developments in sustainability are unfolding at lightning speed in the investor community — in the corporate sector as well as in the political system. It is thereby becoming increasingly meaningful to analyse and understand the global sustainability challenges and the implications they entail. It is for these reasons that we at AP4 in 2017 adopted a new sustainability policy that takes a holistic approach to sustainability, with Climate & Environment and Corporate Governance as our special focus areas.

The new sustainability policy broadens and deepens the integration of sustainability in the Fund's work, making it a natural

component in all of our investment processes. We are also working on further developing our strategies to reduce the carbon footprint of our investments and on broadening them to cover a wider definition of resource efficiency. Aside from the work on reducing the climate and environmental risks in our portfolio, we intend going forward to channel more focus and strength to identifying dedicated investments that benefit from strong sustainability trends and can thereby generate favourable long-term returns.

For a long-term investor like AP4 it is a necessity as well as a responsibility to both manage risks and capitalise on opportunities associated with the shift to a sustainable world.

However, the political decision-makers' ability and decisiveness to create broad international accords and rules — such as relevant pricing of CO2 emissions — will be entirely decisive in the work on steering towards more sustainable development. In all actuality, investors' assessments of both risks and opportunities are based on an expectation that the political system will succeed in taking its responsibility.

I also want to mention the collaboration between the AP Funds to save costs, share experiences and have greater influence.

A successful example of this collaboration is the Council on Ethics of the AP Funds, through which AP1, AP2, AP3 and AP4 collaborate on sustainability issues. The Council on Ethics has developed to become an internationally respected actor that celebrated its 10-year anniversary in 2017.

Taking responsibility through corporate governance

AP4 has a long tradition of dedicating great focus and energy to corporate governance. I would assert that we are a pioneer in this area. We adopted our first owner policy as far back as 1986. This was the first owner policy in Sweden, and also very early in an international perspective. AP4 was also a key player when Sweden's first nomination committee was formed (Volvo, in 1993), and we were also involved in the formation of the Swedish Institutional Owners Association (IÄF). IÄF is one of the principals of the Swedish Corporate Governance Board, which has played a central role in the Swedish model of self-regulation and for the promotion of a well-working stock market.

"Political decision-makers' ability to create international accords and rules will be decisive."

Today active corporate governance is AP4's most important tool for influencing and interacting with the companies in which we own shares. We are constantly developing our approach in an effort to continuously live up to our ambition to be a responsible and value-creating owner that is engaged in a close and relevant dialogue with company boards and managements. To exemplify our active corporate governance work, I can mention that ahead of next year's AGM season, AP4 is active on 31 nomination committees and that in 2017 we voted at 73 Swedish AGMs and at 896 AGMs internationally.

Changed investment rules

During the year the government issued a memo with recommendations for changed investment rules for the AP Funds. This was welcomed, as the existing rules were written more than 20 years ago and have become rather dated.

The memo opens up for greater flexibility in the allocation among various asset classes. The most important aspects are an easing in the requirement to hold liquid, investment-grade fixed income securities and greater scope to invest in illiquid assets. This part of the memo is good and improves the AP Funds' conditions.

"It is important to be able to make long-term and cost-effective direct investments in unlisted companies and debt instruments."

However, it is important that this modernisation of allocation levels is followed by a corresponding modernisation — down to the smallest details — of investment forms and types of instruments so that the more flexible allocation mandate does not become significantly limited and require unnecessarily cost-intensive asset management. We would be given the opportunity but not the tools, which we find hard to believe is the intention. It is especially important that the AP Funds gain the opportunity to make long-term and cost-effective direct investments — such as co-investments in unlisted companies, infrastructure investments, investments in unlisted debt instruments and, not least, long-term investments within sustainability.

The capital markets and investment opportunities are developing rapidly. For this reason it is important to avoid overly detailed regulations so as not to unavoidably and once again quickly end up in a situation with outdated and restrictive investment rules. These were some of the views expressed in AP4's comments on the memo during the autumn.

In conclusion I want to direct warm thanks to all of AP4's employees. Together we successfully handled our extensive, continuing asset management assignment in 2017 at the same time that we worked intensively on developing our operations.

Stockholm February 20, 2018

Niklas Ekvall
CEO



Interview with Catrin Abrahamsson- Pohjanen

Catrin is responsible for macroeconomic analysis and climate scenarios for AP4's long-term asset management.

Catrin is an economist with experience in equity management and asset allocation from a number of asset management organisations.

Market development 2017

"Owing to the favourable economic growth during the year, corporate earnings developed very well in 2017 and considerably better than the market's expectations. This contributed to high returns in the world's stock markets."

How did global growth perform in 2017?

We saw a continuation in 2017 of the strong economic recovery that began during the second half of 2016. This led to gradually higher global growth, which likely reached nearly 3.5% on average for the year as a whole.

Growth was investment-led to a significant extent and created a positive spiral. Companies' higher confidence in the economic recovery and rising profits generated a marked increase in demand for capital goods. Global growth thereby gained a broader and more stable base. The economy also received a significant boost from Asia, including China.

How did this affect the stock markets?

The favourable growth in the economy and earnings contributed to a substantial upswing in the stock markets. Emerging markets, which were hit hardest by the weak economic growth in recent years, benefited from rising industrial production and commodity prices as well as from a positive revaluation of these countries' stock markets. This resulted in very good returns for the year. The developed equity markets also performed well, and overall AP4's benchmark index, the MSCI ACWI, gained 20.5% in local currency.

How did the fixed income and currency markets fare?

Inflation recovered from low levels during the year. However, consumer price increases were lower than expected despite the good growth, better price development for companies and a sharp decline in unemployment.

During the year a number of central banks, headed by the US Federal Reserve Bank, began raising their key interest rates. However, key interest rates in Europe, Japan and Sweden remained unchanged. Interest rates in developed markets continued to be very low relative to the favourable growth.

Currencies remained relatively stable during the year. The Swedish krona strengthened against the US dollar and weakened slightly against the euro as a result of surprisingly favourable growth in Europe during the year and the continued very low Swedish key interest rate.

What can we expect going forward?

I believe there is reason to expect that the global rate of growth will level out somewhat in 2018 as the economic cycle now moves into a later phase, and the very expansive monetary policies that have been pursued up until now are expected to be tightened. In addition to the expected economic cooling, there are a number of risks that I believe may have a negative impact on growth in the coming year. The anticipated interest rate hikes in the USA are one such risk, not least for the relatively highly valued US stock market. Job markets that are approaching full employment in the developed countries pose a risk that inflation will rise more than expected in 2018, which may give rise to faster normalisation of the current level of interest rates. Combined with a high level of debt an interest rate sensitivity in many countries, this poses a risk that demand may be negatively affected more than expected.

Asset values and returns 2017

AP4's assets of SEK 357 billion are invested in various asset classes, including equities, fixed income securities and real estate.

9.1 % return for the year after costs

AP4's total return for the year was 9.2% (10.1%) before costs and 9.1% (10.0%) after costs. The return corresponds to an asset management net result, after costs, of SEK 30.1 billion (30.5%).

The value of AP4's assets and returns are shown below.

Equities account for more than half of assets

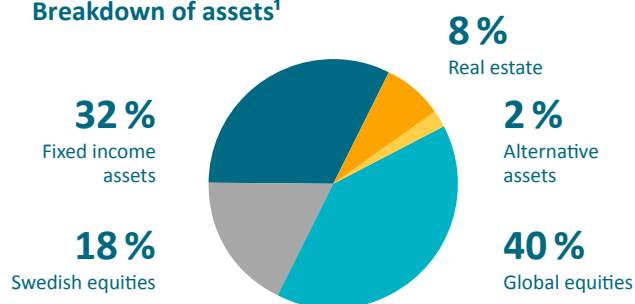
Global and Swedish listed shares accounted for more than half of assets at year-end.

Internal and external management

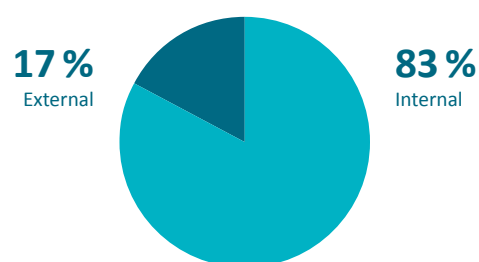
A total of 83.0% (77.3%) of assets were managed internally. The remaining 17.0% (22.7%) were managed externally, of which 5.9% (10.4%) in external index management.

AP4 manages assets internally when an overall assessment indicates that the same or a better return can be achieved at a lower cost through internal management.

Breakdown of assets¹



Breakdown of internal and external management



Asset class	Market value, SEK bn	Portfolio return, %	Exposure ² , %	Contribution to total return, %	Profit contribution ⁴ , SEK bn
Equities, total	207.2	15.7	58.1	8.9	29.2
Global equities	142.5	19.3	40.0	7.3	24.0
Swedish equities	64.7	8.4	18.1	1.6	5.2
Fixed income assets	112.0	0.0	31.4	0.0	0.1
Real estate	28.8	18.7	8.1	1.4	4.5
Alternative assets	8.2	10.9	2.3	0.2	0.8
Currency	0.0	-1.1	0.0	-1.1	-3.6
Other ³	0.5	-0.2	0.1	-0.2	-0.6
TOTAL INVESTMENTS	356.7	9.2	100.0	9.2	30.4

¹ Fixed income assets include cash and cash equivalents.

² Underlying values of derivatives in the passive allocation are distributed among the respective asset classes.

³ Pertains to cash and asset allocations.

⁴ Pertains to result before costs.

Long-term return targets

AP4 has adopted new return targets that apply as from 2018. For its long-term asset management (>40 years), AP4 has set a target for a 4 % annualised return above inflation. Against the background of the extremely low interest rates, it has been determined that it will be difficult in the medium term of ten years to achieve the long-term return target. The long-term target has therefore been complemented with a medium-term ten-year inflation-adjusted return target of 3 %. Both of these targets replace the previous long-term return target of an inflation-adjusted annualised return of 4.5 %.

Long-term target analysis every three years

AP4's return targets are set on the basis of an extensive analysis of future return potential for the various asset classes and of the pension system's obligations. The latter is affected by Sweden's population growth and employment, among other factors. In the evaluation of the development and return potential for the respective asset classes and of the pension system's obligations, long periods of time must be used. AP4 uses a 40-year time perspective in this regard.

The analysis is performed with the primary objective of determining which asset allocations of equities, currency exposure and interest rate durations in a 40-year perspective are best-suited for the pension system's expected obligations, taking generation neutrality into account. By generation neutrality is meant that asset management is conducted in such a way that it does not benefit one generation at the expense of another. The expectation for high risk-taking is that it will lead to higher returns over the long term, which would benefit future generations. At the same time, the risk is higher in the short term, which would be to the

disadvantage of current pensioners. The same applies conversely for low risk-taking. Based on the expected return on assets over this long time horizon, simulations are conducted of various portfolio compositions of equities and fixed income investments along with analyses of the effect they would have on the pension system's stability. AP4 conducts such an in-depth analysis every three years.

Equities generate favourable returns over time

Equities have a high expected long-term return compared with bonds as well as other asset classes. At the same time, equities have high expected volatility, and the return on equity investments can therefore be expected to fluctuate relatively sharply from year to year. In addition, over the long term equities are a real asset, which is beneficial since AP4's obligations are also real.

Therefore, over time a high portion of equities is expected to make a positive contribution to the pension system and its financial strength. This means that AP4's return will, to a significant degree, be determined by the performance of the world's stock markets.

Low-interest environment leads to lower expected returns

In recent years the world's economies have been characterised by expansive monetary policies, very low interest rates globally, and a high level of debt. This has helped drive up valuations for other asset classes. In a period of interest rate normalisation, fixed income investments in particular — but also other assets such as equities — can be expected to generate lower returns and higher volatility than what would otherwise have been the case during the last ten-year period — a period during which returns were also higher than expected. This is an important distinction compared with previous years' medium-term analyses.

The pension system is stronger today

An additional two major changes have affected AP4's analysis. First, the pension system's financial position today is better than what it was at the system's start 17 years ago. The AP Funds' share of the pension system's total assets has gradually increased through the favourable growth in value achieved by the asset management activities. The AP Funds have managed to both meet their payments to the system and still manage their assets successfully and achieve growth in total value. The AP Funds, as a share of the pension system's assets, have increased from 10% at the start of 2001 to approximately 15% at year-end 2016. This serves as a good starting point for any challenges that may arise in the years ahead.

Second, the pension system has now successfully endured roughly a third of the system's estimated period of negative outflows. The system's flows shift over time due to the varying sizes of generations, and right now we are in a period of negative outflows from the pension system. However, these outflows are expected to decrease starting in 2030 and change to the positive sometime around 2040. This is mainly due to demographic factors — that is, at that point in time the share of actively working people in relation to the number of pensioners is expected to be sufficiently high for the pension system's incoming and outgoing flows to be in balance. Thus far the system has worked as conceived and has managed well during the last nine years of negative outflows. The point in time when the system's flows reverse and become positive again has thus drawn closer. On the whole, both the pension system's strong balance sheet and the shorter remaining time of outflows from the system affects the analysis positively, which over the long term entails a slightly lower need for risk-taking for AP4.

Even though the pension system is expected to become stronger based on the overall trend, there are threats along the way — not least the uncertainty surrounding returns from a medium-term perspective.

4% long-term inflation-adjusted target

Based on the analysis of asset markets as well as the pension system over the coming 40 years, AP4 has determined that an inflation-adjusted long-term return target of 4% — a half percentage point lower than previously — represents a sound balance between what is needed to meet the pension system's obligations with consideration for generation neutrality and the expected return and risk over the coming 40 years.

3% medium-term inflation-adjusted target

AP4's assessment is that, going forward, the expected normalisation of the current, expansive monetary policies and very low interest rates can be expected to affect the return on both fixed income investments and other asset classes negatively during the coming ten-year period. In addition, there is a risk of this happening during increased market turbulence. It has therefore been deemed suitable to also work with a medium-term target. The long-term target is considered to be too high during this normalisation period and would therefore risk steering AP4's operations off track in a medium-term perspective and lead to excessive risk-taking. To steer operations right, AP4 has therefore opted to complement it with a medium-term return target of an inflation-adjusted return of 3%.



Historical returns for equities over time

Long period of time in pension context — 40 years

To evaluate the value performance of an asset class, long periods of time must be used. For this analysis AP4 uses a 40-year time perspective.

Development of stock markets and wages over time

During the last 90 years the real return (inflation-adjusted) on equities has varied widely. The average annual real return for global equities during the period 1924—2014 was 6.1%.

The real return for equities during various ten-year periods has varied widely, from more than 10% per year during the 1980s to negative returns during other periods. Large differences between successive 10-year periods are common.

It is not until a 35-year perspective that the real value

development for equities is somewhat comparable in stability with the development of real wages.

It is the real development of wages that largely steers the value development of income pensions. Real annual wage growth during the period 1918—2012 was 2.1%. This is a considerably lower rate of growth over time than what the long-term historical return on equities has been. The difference between the real development of equities and wages has been the greatest during the last two to three decades, when real growth in value of equities exceeded real wage growth. To be able to benefit from the positive value development for equities over time, the investment horizon needs to be long-term. AP4 has a long-term assignment, which also warrants a long-term investment horizon.

Source: Orange report 2016

Refined management structure

During the year AP4 conducted extensive development work designed to improve its opportunities to meet the long-term risks and opportunities associated with a normalisation of interest rates, high levels of debt and high valuations, along with political uncertainty and the climate issue.

An investment philosophy and a sustainability policy have been drawn up and adopted. A new long-term target complemented with a medium-term target has also been adopted. The asset management structure, decision-making structure and organisation have been further developed to be able to take even greater advantage of investment opportunities identified in the asset management and to manage these in a structured manner. Integration of sustainability in the investment processes has been and continues to be in focus. A climate scenario analysis of the impact of climate change on AP4's assets has been started. What is mentioned above is just a sampling of important projects with bearing on how AP4 will manage its assets. The new targets and asset management structure apply starting in 2018.

Three levels in asset management structure

AP4 has refined its asset management structure, which focuses on the ability to invest with several time horizons. The structure can be described according to three levels.

Level 1: Long-term real return target of 4 % over 40 years

At the top level, the Board of Directors has set a long-term return target that indicates the level of return needed for AP4 to fulfil its mission in the pension system over time with a balanced measure of risk — approximately 40 years. The analysis is based on studies of the pension system's obligations and expected future returns. The final result of the analysis is a target return and risk scope in

the form of intervals for the share of equities, currency exposure, and durations in the fixed income portfolio. This extensive process is conducted every three years.

Level 2: Medium-term real return target of 3% over 10 years

Level 2 consists of a medium-term real return target over ten years that the asset management aims to achieve. This medium-term target is set following an analysis of market conditions from a medium-term perspective for the various asset classes included in the portfolio. At this level an allocation portfolio of market indexes is established, adapted to the estimated medium-term market outlook (5—15 years). The medium-term allocation portfolio and a set risk budget serves as a reference for AP4's operational day-to-day asset management, which enables a systematic follow-up and evaluation of the operation's asset management. Level 2 decisions are made yearly by the Board of Directors.

Level 3: Operational management of AP4's assets

The day-to-day management of AP4's asset makes up level 3. The asset portfolio is managed with a holistic perspective, where AP4's total investments are taken into account together. The portfolio is steered with the help of structured risk budgeting, and the asset management works with several different investment horizons up to ten years. The decision-making levels in the new organisation are well-defined, which contributes to high transparency.

The management structure's three levels

4%

long-term real
return target

Level 1

- A risk scope in the form of acceptable intervals for the share of equities, currency exposure and interest rate durations, with a very long-term horizon of 40 years
- The target and intervals are set by the Board of Directors every three years

3%

medium-term real
return target

Level 2

- A medium-term time horizon of 10 years
- Targets and a dynamic reference portfolio with various market indexes and a risk budget that is set yearly by the Board of Directors

AP4's

asset portfolio

Level 3

- The asset management works with several investment horizons up to 10 years
- Sustainability is integrated in the investment work

Investment philosophy

As a buffer fund in Sweden's income pension system, AP4 has three essential characteristics that distinguish it and to some degree set it apart from other investors. These characteristics represent the core of AP4's investment philosophy. The three characteristics are complemented with six investment beliefs. These investment beliefs characterise AP4's portfolio structure, investment strategies and positioning, and describe how AP4 acts to create value-added for Sweden's pensioners.

Characteristics of AP4's investment philosophy

Long-termism

Long-termism and a mandate for an investment horizon that is longer than for most other investors gives AP4 a relative advantage. Other investors are often driven by short-term demands posed by rules or demands for high liquidity. AP4's long-term perspective affords an opportunity to think differently than other investors, to tolerate and be able to go against the stream during short-term market volatility, and be able to bear illiquidity when it is determined to be favourable over the long term.

Large degree of freedom

A large degree of freedom to formulate strategies, portfolio structures and choose investments within the framework of AP4's statutory investment rules. This gives AP4 the opportunity to benefit from its comparative strengths, to take advantage of diversification opportunities, and to proactively adapt the portfolio when market conditions change.

Size

AP4's assets under management are just the right size — neither too small nor too large — to allow for economies of scale that enable cost efficiency without restricting investment opportunities.

Investment beliefs

Sustainability

Integrating sustainability aspects in asset management contributes over time to better management of risks and opportunities, and thereby to returns. AP4 uses active corporate governance to secure asset values.

Well balanced risk-taking

Well balanced and disciplined risk-taking is necessary for generating returns. Risk-taking shall be responsible, well balanced and measurable.

Inefficient markets

The financial markets are not always efficient. This creates opportunities for AP4 through long-termism and active management to capitalise on value-added when imbalances arise between assets' expected returns and risks.

Diversification

A portfolio that is well diversified generates a better risk-adjusted return over time.

Structured processes

A structured investment process is a prerequisite for successful asset management. AP4's processes shall be transparent, disciplined and responsible. Simplicity is sought after, and complexity shall be avoided when it does not generate distinct value-added. All investments are analysed from a portfolio perspective.

Competent organisation

Portfolio management is a knowledge-intensive operation where competent employees are an essential success factor. This puts demands on culture and values to be able to attract, retain and develop competent employees.



AP4 is a long-term owner of Swedish equities and uses active corporate governance to secure asset values.



New unit at AP4

"Strategic Allocation & Quantitative Analysis is a new unit with overarching responsibility for AP4's asset allocation, strategic investments and long-term macro economic and thematic analysis."

Interview with Marcus Blomberg

Head of Strategic Allocation & Quantitative Analysis

Marcus is a civil engineer and economist and has worked with asset management both in Sweden and internationally, specialising in allocations between various asset classes. He was recruited by AP4 in 2017 as Head of Strategic Allocation & Quantitative Analysis.

What do you work with in the new Strategic Allocation & Quantitative Analysis unit?

In short, we have overarching responsibility for AP4's strategic investments, asset allocation, portfolio structure and long-term macro economic and thematic analysis. We also manage AP4's global equities holdings, including our low-carbon investments, among others.

What does your work with macro economic and thematic analysis entail?

Macro economic and thematic analysis is basically a matter of analysing and assessing financial risks and opportunities, and gaining an idea about what the world may look like in one, five, or ten years. We also perform environmental and climate analyses in which we determine which economic and financial effects that environmental issues and climate change — as well as decisions related to these — may give rise to. Based on these various analyses we organise and coordinate AP4's strategic investments and make assessments about how all of the risks in the aggregate portfolio relate to each other.

What advantages do you see in gathering several competencies within a single unit?

By gathering individuals into a single unit who have worked in various areas at AP4 — such as management of global equities, asset allocation and risk management — we can more easily benefit from each other and in various ways create something bigger and better together.

What does your analysis and investment process look like?

We take our point of departure from AP4's distinctive features as an investor, such as our ability to act very long-term. This gives us the conditions to be very successful in our asset management through structured application of our investment beliefs, such as that the financial markets are not always efficient. This creates opportunities for AP4 to create added value over time through a long-term focus and active management. Our asset management is based on financial theory, and we stay up to date with academic research, which we try to apply both quantitatively and qualitatively. Our sustainability considerations are a foundation for us. Our ability to maintain a very long-term focus compared with many other investors gives us greater scope for other investment opportunities than for other asset managers. Naturally this also requires other forms of analysis and investment strategies.

What is your focus for 2018?

Our unit was created in mid-2017. During this short period of time it has been very important for us to come together as a team and create forms for utilising everyone's expertise. Thus far things have worked out very well. During 2017 we built up the unit while being extra careful to attend to our day-to-day work in parallel with our development activities.

We have also been highly involved in the work on developing the asset management structure at AP4, such as the portfolio structure, return targets and investment philosophy. In 2018 we will continue our work on achieving the full potential of the new organisation and asset management structure.

Positive contribution from different time horizons

AP4 has an investment philosophy that is based on long-termism. Within this framework, assets are managed with different time horizons — all of which have made a positive profit contribution over time. Having several time horizons allows AP4 to take advantage of more business opportunities with favourable expected returns. This work approach also lowers the risk in the asset portfolio.

Further development of asset management structure

In 2017 AP4 conducted strategic development work on the asset management structure. This refined management structure is being implemented in 2018. The operations described here are based on the asset management structure that was applied by AP4 during 2017.

Positive contribution from all time horizons

During the last five years AP4 has worked with three different time horizons for its investments — a reference portfolio with a 40-year time horizon, assets invested with time horizons of 3–15 years, and assets with a horizon of up to three years. These three different time horizons have created conditions to benefit from AP4's long-term mission. All of the investment horizons made a positive contribution over the five-year period.

Investment horizon	Return contribution over 5 years, SEK bn
Long-term investment horizon, 40 years	139.0
Short-term investment horizon, 3 – 15 year	17.3
Active management, up to 3 years	3.3
TOTAL PROFIT CONTRIBUTION	159.5

Investment horizon 40 years

The reference portfolio has a 40-year investment horizon with an asset allocation that is decided on yearly by the Board of Directors. It is measured according to a compilation of various market indexes. The reference portfolio's asset allocation consists mostly of equities. This means that AP4's return is largely determined by the performance of the world's stock markets.

During the five-year evaluation period the reference portfolio made a positive return contribution of SEK 139.0 billion, with the portfolio's equity exposure as the main contributor to earnings, of SEK 112.5 billion.

Investment horizon 3–15 years

Just over a third, or 37.2% (32.9%), of AP4's assets, corresponding to SEK 132.5 billion (110.0), were managed during the year with an investment horizon of 3–15 years. Investments managed with this time horizon during the year included, among other things, real estate, AP4's overweight in Swedish equities and corporate bonds, a Swedish small cap portfolio, and sustainability strategies, such as AP4's low-carbon strategies.

The total return contribution was SEK 17.3 billion over the five-year evaluation period.

Real estate exposure contributed SEK 10.0 billion to earnings over the five-year evaluation period.

The overweight in Swedish equities was SEK 64.7 billion (63.2) at year-end and was distributed over a number of different mandates. Over the five-year evaluation period the overweight contributed SEK 1.9 billion to earnings. However, in 2017 the Swedish stock market performed below the global equities portfolio. AP4 has had a significant share of its assets invested in Swedish equities for several years. This overweight in Swedish equities is based on AP4's conviction that, over time, the Swedish stock market will generate a higher expected return for several reasons. Sweden has a well functioning economy, and listed

companies make up a highly diversified, competitive industrial structure with a high degree of globalisation. Well working rules and self-regulation through, for example, the Swedish Corporate Governance Code, along with a successful corporate governance model, are positive contributing factors. AP4 also has particularly favourable conditions to cost effectively create value-added in its management of Swedish equities. Moreover, AP4 is in a favourable position to manage the elevated volatility that having a large share of Swedish equities in its portfolio entails, as long as it leads to long-term higher returns.

For several years AP4 has had an overweight in corporate bonds. This overweight amounted to SEK 45.1 billion (42.6) at year-end, corresponding to 12.6% (12.7%) of AP4's assets.

By allocating capital from government bonds to corporate bonds with good credit ratings, AP4 believes that the fund can earn a better return over the long term. Over the evaluation horizon of five years the profit contribution was SEK 1.0 billion.

Investment horizon up to three years

Management with an investment horizon of up to three years includes investments primarily in global and Swedish equities, and in fixed income securities. The asset management assignment is to generate excess returns on securities with an investment horizon of up to three years by outperforming the index. The asset management identifies and invests in securities with an expected, positive long-term growth in value, and benefits from the estimated revaluation potential of investments and mispricing in the market in order to exceed the performance of passive index management.

Tactical management, investment horizon up to three years	Active annualised return, three-year evaluation period, %	Active return contribution, three-year evaluation period, SEK m
Global equities	0.3	772
Swedish equities	0.6	450
Fixed income	0.0	-64
Equities index ¹	-0.1	-354
Currency ¹	0.0	219
TOTAL	0.2	1,023

¹ Active return contribution with total investments as base.

Over the three-year evaluation period, AP4's asset management with a time horizon of up to three years generated a return that was better than the index and a profit contribution of SEK 1.0 billion. The profit contribution over five years was SEK 3.3 billion.

The active return from asset management was 0.4 percentage points (0.0) for the full year, which was better than the index.

This corresponds to an active profit contribution of SEK 750 million (87) in 2017.

Nine years better than the index

Since implementation of the current asset management structure nine years ago, management of assets up to three years generated a return better than the index. For these nine years in total, the positive profit contribution above the index was nearly SEK 9 billion.



Equities more than half of assets

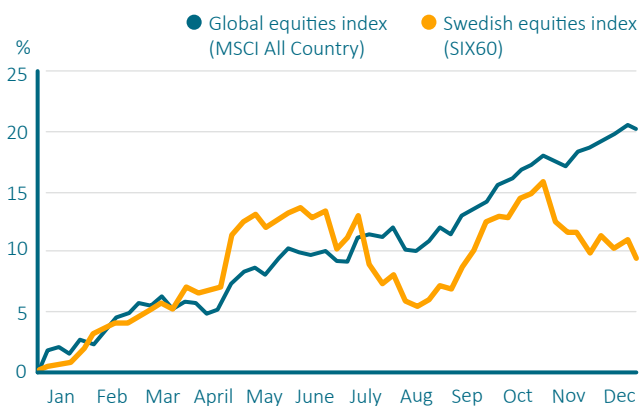
The long-term approach in AP4’s asset management justifies having a high share of equities in the portfolio. Equities have had positive growth in value for six years in a row.

At year-end 2017 equities accounted for 58.1% (58.3%) of assets, broken down into 40.0% (39.4%) global equities and 18.1% (18.9%) Swedish equities. The market value of listed shares was SEK 207.2 billion (194.8).

Continued favourable returns for equities

The return in 2017 was 19.3% (7.3%) for AP4’s global equities and 8.4% (12.4%) for Swedish equities.

Strong performance for global equities



Concerns over the Swedish economy resulted in lower returns for Swedish equities than for global equities in 2017.

Swedish active management

AP4’s active management of Swedish equities has outperformed the index for a number of years with good risk-adjusted returns.

Management is based on long-term fundamental company analysis, where corporate governance and sustainability are integrated in the strategy. The goal is to outperform the index by identifying companies with good long-term value growth and equities with revaluation potential.

Global active management

Global management focuses on the selection of external asset managers, portfolio construction and quantitative analysis.

Active management of global equities is conducted by external asset managers in a number of sub-portfolios. The external managers are selected to increase the diversity of returns and risk sources, and they differ in terms of region, information sources and investment strategies, enabling favourable risk-adjusted returns over time.

AP4 lowers climate risk in its assets through investments in low-carbon investments, among other things. These have made a positive profit contribution over time.

Internal cost-effective asset management

Internal asset management, when feasible, is both more cost-effective and flexible. AP4 therefore evaluates its investments yearly with respect to internal vs. external management. During the year AP4 decided to manage a larger share of its global low-carbon investments internally. However, investments in emerging countries are still under external management.

In 2016 AP4 made a business decision to not own shares in any tobacco companies. Such companies’ shares are considered to be overvalued and are expected to perform below the index over time. Read more on page 36.



Low-carbon strategies

"We have built up expertise in internal asset management that is both cost-effective and flexible. For example, we recently raised the target for how much the carbon footprint should be reduced in our low-carbon investments."

Interview with Pontus Lidbrink

Manager of AP4's low-carbon strategies

Pontus is a civil engineer and economist. He has a background in equity analysis and index management, and began working for AP4 nine years ago. Today he is responsible for the internally managed part of the global equity portfolio.

What is your main focus on now?

It is on how we at AP4 can — in a smart way with respect to sustainability, returns, risk and cost-effectiveness — increase the share of climate-smart strategies in the portfolio, such as our investments in low-carbon strategies.

What does it mean to you that AP4 has Climate & Environment as a focus area?

It gives me an interesting and exciting opportunity to influence the future. AP4 makes long-term investments, and our work with sustainability fits into this since it typically entails a long-term investment horizon.

My challenge going forward is to integrate sustainability aspects and further develop climate-smart strategies for AP4's entire global equity portfolio.

Then why does AP4 own fossil companies?

That's a question we are constantly discussing and think about internally. We are currently in a period of transition toward a low-carbon society that will take place gradually over many years.

We will therefore continue to own companies that are part of the economy we have today. Our overarching mission and objective is to generate a favourable and stable return for pensioners over the long term. This applies also during the ongoing shift to a low-carbon society, which we are part of.

We are working with great focus on further developing how we integrate sustainability aspects and climate risk in our investments.

Selling off all investments today that are coupled to fossil-based operations would not be taking responsibility or fulfilling our mission in the best way possible. Instead, we are finding

other ways to work, such as through investments in low-carbon strategies and using our ownership role to influence companies towards greater sustainability. We have also opted out of owning shares in companies with the largest share of fossil fuel reserves. During the transitional period that we currently find ourselves in we are constantly assessing various risks and opportunities to accomplish our mission.

Are you managing more internally today?

We have gradually reduced our investments in externally managed low-carbon strategies and increased our share of internal management. We have built up internal competence, which has resulted in more cost-effective asset management. Internal asset management is also more flexible. We can make decisions faster about changes in strategies when we see various business opportunities or ways to increase our sustainability focus. For example, we recently raised the target for how much the carbon footprint should be reduced in our low-carbon investments.

Will you be increasing investments in the Climate & Environment sector?

In 2017 we increased our low-carbon investments to just under 31% of the global equity portfolio. We want to increase this share further and are currently analysing how to best do this in an efficient manner. We are also analysing other sustainability factors that can be part of broader investment strategies, but it is too early to say what these may be. Clearly, however, there is a lot we can do from a climate and environmental perspective.

Fixed income investments and currencies — just over a third of assets

2017 was characterised by low and at times negative interest rates.

Fixed income assets

The market value of AP4’s fixed income assets, consisting of government and corporate bonds, was SEK 112.0 billion (107.1) at year-end, corresponding to 31.4% (32.1%) of total assets.

In an environment with very low and even negative interest rates, the return for AP4’s fixed income assets was 0.0% (2.0%).

Global macro management

AP4’s global macro management unit is responsible for management primarily of fixed income securities and currencies. Management is conducted actively with the goal of generating a higher return than the index. Bonds with the highest credit rating of AAA1 accounted for slightly more than 80% of AP4’s bond holdings. Bonds denominated in Swedish kronor and US dollars accounted for slightly more than three-fourths of AP4’s bond holdings.

The fixed income management invests in government bonds issued by European countries, the USA and Australia.

Investments in corporate bonds must have a credit rating of BBB1 or higher. AP4 has a strategic overweight in corporate bonds, which accounted for slightly more than half of the Fund’s bond holdings at year-end.

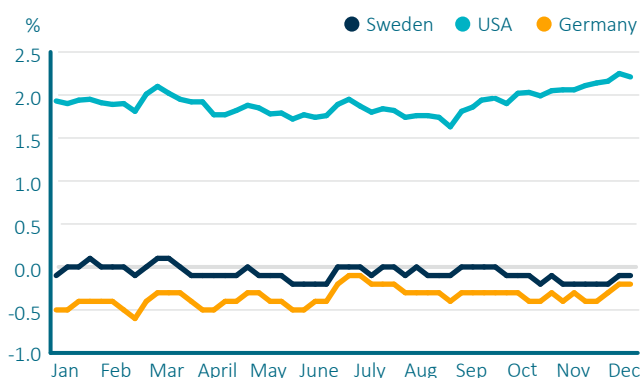
AP4 is active both as an investor and developer of the market for green bonds. AP4’s asset managers evaluate and invest in green bonds when they meet the Fund’s criteria for sustainability and profitability.

¹ The credit ratings presented here refer to an internal standard. For 2017 this standard is based on the rating assigned by the chosen rating agency (Moody’s Analytics UK Ltd).

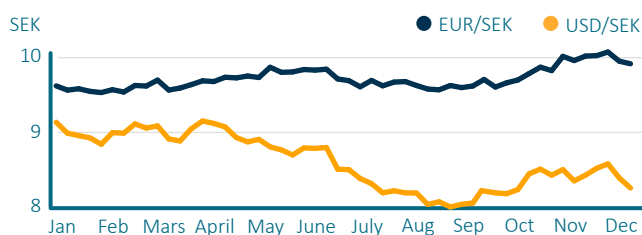
Currencies

AP4 hedges some of its foreign assets. Currency management works in part with the management of AP4’s currency-hedging portfolio and in part with active currency trading. AP4’s currency exposure, i.e., the proportion of assets in foreign currencies not neutralised by hedges, amounted to 18.4% (26.9%) of assets at year-end.

Stable interest rates (government bonds, 5-year terms)



Dollar decline in 2017





Currency management

"For the Swedish krona's development it is mainly Riksbanken's actions regarding the current extremely low key interest rates and developments in the housing market that will be significant."

Interview with Per Berglund

Senior Currency Manager at AP4

Per is an economist with experience from industrial companies and investment banks, both in Sweden and internationally. He has worked with currency management at AP4 for ten years.

What makes it rewarding to work for AP4?

As a state pension fund we have an important mission to contribute to financial security for current and future pensioners. We also have unique conditions to be more long-term in our asset management than many other investors, which means that we can be flexible about the time horizon of our investments. This gives us great opportunities in our asset management.

What makes AP4 a good asset manager?

I would say there are many reasons for this. For example, we have good business support at AP4, entailing that we work together as colleagues and have great confidence in each other. This gives us courage and security in our actions.

Our investment thesis, which we have adhered to for the past ten years, is based on leveraging AP4's long-term mandate to take currency positions that are undervalued according to our valuation models. An investment horizon of up to five years makes us less sensitive to volatility, i.e., fluctuations in exchange rates over time. Many other actors have a shorter evaluation horizon, which gives us a competitive advantage.

What worked well in 2017?

In autumn 2016 we began positioning ourselves for a prospective weakening of the US dollar, which also happened in 2017. It was a position that worked well and that we made a lot of money on. At the same time, 2017 was a turbulent year, especially in the political arena. It has therefore been important for us to have the preparedness for various scenarios in order to be able to generate good returns in the future, regardless of the outcome.

What is your view of the future?

We see that China, which is already a major factor in the global economy, will have an even more prominent role in the currency markets. Previously we wondered if China as a country would succeed at being the leading global economic actor, but now it's only a matter of when. However, nearly all pension funds still have major investments in the USA, which is why it is still a central matter to monitor developments there. For the Swedish krona's development it is mainly Riksbanken's actions regarding the current extremely low key interest rates and developments in the housing market that will be significant.

We have now had a relatively calm period of nearly ten years since the last crisis, so we can expect a more volatile market in the future. In such a market, currency management opportunities always open up.

Real estate and alternative investments 10% of assets

The real estate portfolio consists mostly of directly owned real estate companies. Alternative assets consist of other unlisted investments.

Real estate

The market value of the real estate portfolio, including a mandate focusing on listed Swedish real estate companies, was SEK 34.1 billion (28.9) at year-end, corresponding to 9.6% (8.6%) of AP4's total assets. The return for the year was 17.2% (25.3%), which represents a positive profit contribution of SEK 5.0 billion (5.8). Real estate made a positive active return contribution of 0.0 percentage points (1.2) above the index, corresponding to SEK 0.1 billion (3.5) billion.

Directly owned real estate companies

AP4 has chosen primarily to have direct ownership in real estate companies, as this is considered to be cost-effective, transparent, and increases the potential for favourable returns. At year-end approximately three-fourths of AP4's real estate portfolio consisted of its holdings in the directly owned real estate companies Vasakronan and Rikshem.

The real estate company Vasakronan accounts for just under half of AP4's real estate portfolio. Vasakronan is jointly owned with AP1, AP2 and AP3, with each owning 25%. Vasakronan manages commercial properties in Sweden valued at more than SEK 126 billion (115), making it Sweden's largest real estate owner. The total return on Vasakronan's real estate portfolio remained favourable in 2017.

Vasakronan has long integrated sustainability aspects in its operations and has been awarded the highest rating — Green Star — by GRESB (Global Real Estate Sustainability Benchmark), which assesses sustainability performance in the real estate sectors globally. Vasakronan's outstanding volume of green bonds increased in 2017 and now amounts to SEK 8 billion (5).

The real estate company Rikshem accounts for a fourth of AP4's real estate portfolio and is half-owned each by AP4 and AMF. At year-end Rikshem owned properties with a market value of approximately SEK 41 billion (38). The portfolio is concentrated to residential properties and properties for public use, i.e., properties with long leases where the tenant is often a municipality. The total return for Rikshem's real estate portfolio remained favourable during 2017. Rikshem has outstanding green bonds worth SEK 1.9 billion (1.5).

Alternative assets

Investments in alternative assets consist primarily of private equity funds and illiquid fixed income securities.

AP4's exposure to alternative assets was 2.3% (2.3%) of total assets at year-end. The market value of alternative assets was SEK 8.2 billion (7.8) billion at year-end. All alternative assets are managed externally and generated a combined return of 10.9% (3.4%) in 2017.





AP4 owns half of Rikshem, a real estate company focused on residential properties and properties for public use. AP4 participated in the build-up of Rikshem in order to create a long-term and cost-effective exposure to this real estate segment. Pictured here is Rikshem's Mamregatan apartment building in Norrköping.

Sustainability analysis a precondition

The following pages provide a general description of AP4's sustainability work. A more detailed presentation is available in AP4's Sustainability and Corporate Governance Report 2017, which will be published in spring 2018, and at www.ap4.se.

Sustainability affects us and the world we live in. AP4 believes that integrating sustainability aspects in investments is a precondition for its ability to generate sustainable returns over time.

Can always be done a little better

Integration of sustainability aspects in asset management to ensure that sustainability is taken into account in investment analyses and decisions is important and necessary for a long-term pension manager. AP4 has worked with sustainability for many years. It is work that is constantly evolving and that can always be done a little better. During 2017 the asset management operations conducted considerable development work focusing on how AP4 integrates sustainability in the various investment processes.

Sustainability in focus

During the year several projects were conducted with the aim of integrating sustainability aspects in the day-to-day asset management activities in a more structured and systematic way. AP4 conducted the following activities during the year, among others:

- Drafted and adopted a sustainability policy, which serves as a joint framework and support in the integration of sustainability in asset management activities. The UN's and global Sustainable Development Goals are part of AP4's framework for integrating sustainability in asset management
- Declared that AP4 works with two sustainability focus areas — Climate & Environment and Corporate Governance — for which overarching external goals are being set
- Within the framework of the Climate & Environment focus area, conducted development work of investment strategies in the management of global equities
- Identified and worked on deepening the integration of sustainability aspects in the respective asset classes and asset management strategy

- Began work with scenario analyses of climate-related risks and opportunities in AP4's assets

Owner initiatives in partnership

AP4 participates in global partnerships and owner initiatives in a number of different areas to promote sustainability around the world. Owner initiatives address many different sustainability aspects, such as for example urging companies to refrain from negative climate lobbying, advocating for stock markets around the world to apply sustainability reporting guidelines, demanding that oil companies work to reduce the negative environmental impacts of their operations, and joining in initiatives focusing on gender equality and human rights.

Council on Ethics of the AP Funds — successful collaboration

AP1, AP2, AP3 and AP4 collaborate in the Council on Ethics of the AP Funds to influence foreign companies to work for improvement in the area of sustainability. The Council's continuing work encompasses preventive and reactive dialogues with foreign companies — some 200 dialogues every year — as well as industry-wide projects, and international collaborations and initiatives. Read more about the Council on Ethics of the AP Funds on page 33.

Coordination of carbon footprint reporting

AP4 and other AP Funds measure and report the carbon footprint of their investments yearly as part of their broader work on addressing climate change. While measuring carbon footprint provides important knowledge, it also has limitations as a metric. The AP Funds have a council for cooperation composed of representatives from each of the AP Funds to coordinate and monitor developments surrounding climate reporting. AP4's carbon footprint over time is reported in the table on page 51 and on www.ap4.se.

The UN's sustainability goals are part of AP4's framework

The UN's Sustainable Development Goals (also called the Global Goals or SDGs) are important for investors, as they help stimulate investments that can contribute to solutions to major global problems. At the same time, they help set the conditions for long-term sustainable development.

Contributing to achievement of the Global Goals

Through its sustainability work and its investments, AP4 can contribute to the achievement of the UN's Sustainable Development Goals in various ways. AP4 works with two focus areas in its investments — Climate & Environment and Corporate Governance. These are two areas in which AP4 is supporting the UN's Global Goals in various ways.

Sustainable Development Goals part of sustainability policy

During the year AP4 focused on increasing the integration of sustainability in its asset management. A framework for this was adopted in the form of a sustainability policy. In this work it was determined that the UN's Sustainable Development Goals shall serve as a framework for AP4's asset management and investments.

Climate change is a real threat

Climate change, water shortages, social unrest and population migrations are all factors that pose a risk to economic stability and growth. The investor community is now rapidly beginning to understand the necessity of including sustainability in investment assessments.

Climate & Environment is one of AP4's two focus areas. AP4's choice of focus areas was based on a number of criteria. One of the most important was that the climate and environment are fundamental preconditions for all life and for the ecosystems that we know today. Protecting the climate and environment is thus

a vital precondition for being able to achieve other global sustainability goals.

AP4 and the UN's Sustainable Development Goals

The goal is that AP4, within the areas that the Fund is active, will continue to develop activities that can contribute to higher returns for Sweden's pensioners at the same time that AP4 contributes to a more sustainable world.

AP4 today has investments or works continuously in a number of sustainability areas that support the Global Goals. For a number of years AP4 has had several overarching goals within its two focus areas of Climate & Environment and Corporate Governance, which contribute to the ensuring that this work is prioritised, measured, monitored and developed. AP4 has also worked for many years on lowering climate risk in AP4's assets, such as by being a pioneer in investing in low-carbon strategies and serving as one of four co-founders of the Portfolio Decarbonization Coalition (PDC) together with the UN in the aim of encouraging investors around the world to invest more sustainably.

AP4 is active in owner initiatives that support the UN's Global Goals. These include initiatives urging companies to refrain from negative climate lobbying, initiatives advocating for stock markets around the world to apply sustainability reporting guidelines, initiatives demanding that oil companies work to reduce the negative environmental impacts of their operations, and initiatives focusing on gender equality and human rights.

AP4's Sustainability and Corporate Governance Report and the Council on Ethics of the AP Funds Annual Report include presentations of the global Sustainable Development Goals that this work primarily supports.

Climate & Environment

— a focus area

Awareness that our planet's resources are finite is increasing steadily. The climate and environment serve as the foundation for life as we know it today. It concerns essential and often global resources such as clean air and water, which all too often are taken for granted and are seldom priced correctly. The climate and environment are considered to have a material impact on the financial value of all of AP4's assets.

Priority focus area

For AP4 as a long-term investor, Climate & Environment is a natural choice as a priority focus area. Climate & Environment is the foundation for being able to achieve all of the UN's Global Sustainable Development Goals.

Global threat

Climate change is about how greenhouse gas emissions and other emissions are having a negative effect on Earth's climate and leading over time to a higher average temperature. The climate affects our world, living environments and communities, and thereby also the profitability of all of AP4's investments. According to AP4's analysis, climate change is the overarching global threat to future returns and stable pensions. The expected effects of climate change are documented in many reports, as are assessments of how the Earth is will be affected by expected levels of temperature rise.

Safeguard assets and the future

AP4's work in the Climate & Environment focus area is aimed at lowering climate risk in the asset portfolio. It safeguards AP4's assets and returns in connection with an expected revaluation of, for example, carbon emissions and fossil fuel reserves and contributes to the shift to a climate-neutral society. The asset

management organisation is working constantly on developing and investing in various strategies and on contributing knowledge about low-carbon strategies and green bonds.

Reduce climate risk in assets

In the shift to a climate-neutral society, AP4 believes among other things that greenhouse gas emissions will lead to rising costs for companies. Companies with large emissions and/or fossil fuel reserves will be negatively affected, and they will be valued and priced differently than today. It is for this reason that since 2012 AP4 is investing to lower the climate risk in its asset portfolio. Today a global platform is used for investments in low-carbon strategies. These investments lower the climate risk in AP4's assets by halving exposure to companies with the relatively largest emissions of carbon dioxide and fossil fuel reserves. These investments are made under restricted risk-taking with a maintained expected return relative to benchmark indexes.

The environment — both a risk and business opportunity

Access to clean air, water and land is a life necessity. These are resources that AP4 believes will be priced more correctly in the future. Supply, the offering, regulation and pricing of such resources will affect the valuation of AP4's assets. The environment is an area with significant sustainability risks and business opportunities.

AP4 co-owns the real estate company Vasakronan together with AP1, AP2 and AP3. In 2013 Vasakronan issued the world's first green corporate bond. Outstanding green bonds now amount to SEK 8 billion — funding that has been used for new construction, renovation and energy efficiency projects. Pictured here is Vasakronan's Klara Zenit property in central Stockholm.



Environmental goals

Integrating sustainability aspects associated with the climate and environment in asset management has high priority. AP4 has a number of overarching goals for this work.

AP4 shall:

1 Increase the share of investments that lower climate risk in the asset portfolio

During the year, the share of investments that lower climate risk in the asset portfolio increased to just under 31% of AP4's global equity investments.

The goal is to further increase the share of investments that lower climate risk in the asset portfolio.

2 Map out quantitative and qualitative indicators for Climate & Environment in AP4's assets

Work continuously to map out complementary indicators for Climate & Environment — both quantitative and qualitative — which can be used in asset management.

More indicators for climate risk are necessary as a complement to measuring carbon footprint, which only shows part of the exposure to climate risk in the asset portfolio.

3 Measure and disclose AP4's carbon footprint

The carbon footprint of listed shares shows certain aspects of the exposure to climate risk. AP4's yearly carbon footprint for holdings of listed shares is presented in a table on page 51 and at www.ap4.se.

4 Scenario analysis of climate-related risks and opportunities for AP4's assets

This work was initiated during the year and is continuing in 2018.

5 Help make the green bond asset class attractive and grow

AP4 shall contribute capital in new issues and create a liquid secondary market for green bonds when they meet AP4's criteria for sustainability and profitability.

At year-end AP4 owned green bonds with a market value of SEK 4.1 billion (4.9).

6 Spread knowledge about sustainability

The asset management organisation allocates time to share its knowledge and experience about low-carbon strategies and green bonds with other institutional investors. During the year AP4 gave presentations at the UN in New York and in connection with COP-23 in Bonn, among other venues.



Green bonds in focus

"Our assignment is to generate long-term high, sustainable returns — not to buy and own a certain volume of green bonds regardless of price. Our approach is to invest in green companies, not just green bonds."

Interview with Bengt Lindefeldt

Head of Global Macro Management of fixed income securities, currencies and equity indexes

Bengt has a degree in civil engineering and a long record of experience in fixed income securities and currencies — as a quantitative analyst and asset manager — both from internal banks and insurance companies. He has been responsible for AP4's global macro management for nearly ten years.

How do you work with sustainability in fixed income securities?

In managing fixed income securities and currencies, our sustainability focus can be seen most clearly in our investments in green bonds, which we have been working with for many years. A green bond is typically tied to a specific sustainability project.

We are active both in new issues of green bonds and in the secondary market for these.

Regardless of the type of bond — a green bond or ordinary bond — we conduct a risk assessment of the bond issuer from environmental and climate perspectives. We invest in bonds issued by companies, organisations and countries. When a bond is issued by a bank or a company, it is easier to determine how various sustainability aspects are coupled to the investments than if the bond is issued by a country.

How do you determine if a country is sustainable?

For our investments in government bonds, which are issued by various countries — and for our currency exposure — it is harder to measure and link the investment to specific sustainability aspects. We therefore look at the country's exposure to fossil-based production and exports, since these entail long-term risks that could affect our investment.

AP4 does not have a specific target for how much green bonds you want to own. Why?

It is common today that pension funds have an assignment to buy green bonds for specific amounts and terms. As a result, there are now

more buyers than sellers, and the prices are thus rising. In many cases green bonds are overvalued, that is, the price is high compared with the risk they hold or compared with the price for other, ordinary bonds. This means that pension funds with such an expressed goal sometimes invest in bonds with lower expected returns to be able to say that they have reached their target for investments in green bonds. That's not how we work.

Our assignment is to generate long-term high, sustainable returns — not to buy and own a certain volume of green bonds regardless of price. Our approach is that we want to invest in green companies, not just green bonds. Our goal is to be an active, major actor in green bonds and to gradually build a green bond portfolio in pace with the market's growth.

We also want to continue to be active in the new issue market, where we can contribute new capital to green investments. The market for green bonds is growing very quickly, but it is still very small — roughly 1% of the total, global bond market.

Any trends going forward?

In pace with the development of the green bond market we are seeing an increase in knowledge and that previous criteria and rules are evolving about what should distinguish a green bond. For example, in January 2018 a Swedish government study was presented on how to promote green bonds.

The Council on Ethics of the AP Funds — promoting dialogue

The Council on Ethics of the AP Funds is a collaboration between First, Second, Third and Fourth AP Funds (AP1—AP4) aimed at encouraging foreign companies to make improvements in sustainability.

Continuous work — approximately 200 company dialogues

The Council on Ethics of the AP Funds strives to influence companies around the world to pursue corporate social responsibility to ethical, environmental and sustainability issues that are of major importance for people and communities, and for the companies' own value creation.

Through dialogues and talks, the Council on Ethics becomes engaged both preventively and in connection with incidents. In this way the AP Funds can prevent problems, violations and accidents in various companies and industries. The AP Funds believe that long-term value is created by sustainable companies, which contributes to development and to sustainable pensions. The Council on Ethics' ongoing work involves both preventive and reactive dialogues with foreign companies — some 200 dialogues a year — as well as industry projects, international collaborations and owner initiatives.

Company dialogues focus on how companies deal with difficult issues in their operations, including corruption, human rights, labour rights, health and safety, pollution and biodiversity. The Council on Ethics of the AP Funds conducts preventive projects in areas such as human rights and anti-corruption.

Celebrating ten years of close collaboration

The Council on Ethics of the AP Funds is a successful collaboration between the AP1, AP2, AP3 and AP4, and celebrated its ten-year anniversary in 2017. In connection with this, two highly attended seminars were held on responsible and sustainable investments:

- About climate change with Al Gore and Johan Rockström
- About responsible investments, human rights and the environment



Council on Ethics
Swedish National Pension Funds

Annual report describes work

The work of the Council on Ethics of the AP Funds is described in an annual report that is published in spring each year. For further information, visit its website: www.etikradet.se.



The Council on Ethics of the AP Funds advocates for a strengthening of human rights in companies' activities. Human rights shortcomings are a problem in many sectors, especially in industries with long supply chains and production in countries with weak legislation and compliance. The fishing industry is one example, where the Council of Ethics is working through owner initiatives to improve working conditions and remedy sub-standard conditions.

An owner that influences companies to improve

Being an active, responsible owner through its asset management is one of AP4's sustainability focus areas. The goal is for companies to be managed sustainably, responsibly and as efficiently as possible. This creates conditions for them to be successful and deliver long-term sustainable returns, which in turn contributes to stable pensions.

Responsible owner

Corporate governance is an expressed part of AP4's strategy to enhance returns. Areas that are commonly addressed include a company's strategy, sustainability work, board composition, capital structure, remuneration structure and transparency.

In general AP4 believes that direct dialogue, preferably face to face, with company boards, management and other owners often works best. In order for dialogues to work and be successful, they are conducted in confidence between the parties and not via the media, for example.

AP4's work with corporate governance aims to:

- contribute to favourable, long-term sustainable returns,
- safeguard the best interests both of shareholders and individual companies,
- take into account the unique circumstances and needs of each individual company,
- exercise the rights and obligations of AP4's ownership role responsibly and with a long-term perspective, and
- promote the development of generally accepted practice in the securities market. Well-functioning stock markets are essential for long-term investors to be able to generate high and long-term sustainable returns.

Medicover is an international health-care and diagnostic services provider. The company was listed on the stock market in 2017, at which time AP4 became the company's largest shareholder. AP4 is participating on Medicover's nomination committee ahead of its 2018 Annual General Meeting.





Goals of corporate governance

AP4 adheres to the following principles in its corporate governance:

- 1 Participate on nomination committees**
AP4 participated on 30 nomination committees ahead of companies' 2017 Annual General Meetings and is participating on 31 nomination committees ahead of the 2018 AGM season.
- 2 Interview all or certain board members in connection with board evaluations**
In a nomination committee's evaluation of a board, AP4 advocates that the nomination committee conducts its own interviews to gain a deeper understanding of how well the board is working. This is an important complement to any written, self-assessments that the board may have commissioned or to an external board evaluation.
- 3 Advocate for greater diversity among board members, especially in terms of gender balance**
On the nomination committees that AP4 participates on:

 - at least one woman should be on the short list of nominations for new board members, and
 - the nomination committee shall strive to ensure that the Swedish Corporate Governance Code's recommendations on the proportion of women are met.

On the nomination committees for 2017 AGMs on which AP4 participated, 15 newly elected board members were women, corresponding to 52%.

- 4 Exercise voting rights at Swedish AGMs**
AP4 gives priority to companies in which it has major holdings, has a large share of votes, and/or to issues of fundamental importance.
During 2017 AP4 participated at 73 Swedish AGMs, of which five by proxy.
- 5 Exercise voting rights at foreign AGMs**
AP4 gives priority to the largest companies in the respective markets, companies that the Council on Ethics of the AP Funds works with, and companies through which AP4 is supporting an international initiative.
AP4 voted at a total of 896 AGMs of foreign companies during the 2017 AGM season.
- 6 Support initiatives for the adoption of governance and stewardship codes internationally**
AP4 is eager to provide constructive views and recommendations in connection with the adoption or updating of governance and stewardship codes.

No investments in tobacco companies

Elevated risks in owning tobacco stocks

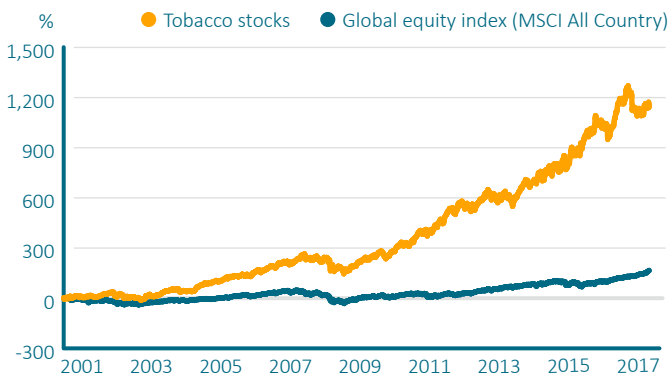
AP4 believes that rising long-term risks posed by greater regulation, among other things, will have a negative effect on tobacco company valuations in the future. These are risks that are determined to be incorrectly factored in today, and shares in tobacco companies are considered to be overvalued. Over time, tobacco companies therefore risk performing below the index. In view of this, in 2016 AP4 took the business decision to not own shares in tobacco companies.

Tobacco stocks historically very profitable

In Sweden and many other countries it is currently legal to produce and sell tobacco despite the high costs to society — costs that are seldom compensated by tobacco taxes.

Tobacco stocks have essentially outperformed the index throughout the entire 20th century, that is, they have performed better than the market as a whole. Tobacco stocks have therefore historically been profitable to own and have given investors a relatively high and stable return.

Tobacco stocks compared with global equity index



Positive earnings contribution over time

Thus far, AP4’s business decision to not own shares in tobacco companies has made a positive earnings contribution. In 2017, as well, the active position has developed favourably.



Tobacco stocks have historically generated a high return.

Stakeholder dialogues and transparency

A stakeholder is a party who is affected by or has interests in AP4's operations. In its varying roles as a governmental authority, AP Fund and investor, AP4 has many different stakeholders. In meetings and dialogues with our stakeholders, AP4 explains its operations, listens to views and takes in the opinions of others about its work.

Meetings with stakeholders, dialogues and materiality review

Through their operations and investments the AP Funds have an influence on people, the environment and society. To learn about which sustainability issues that AP4's stakeholders consider to be the most important, every couple of years AP4 conducts a materiality review among its stakeholders.

In 2017 AP4, together with AP2, AP3 and AP4, invited representatives from various stakeholder groups to a joint workshop for dialogue and a materiality analysis. Approximately 60 persons participated in the workshop, representing principals (representatives from the Ministry of Finance and persons from the pensions group), beneficiaries, society (such as stakeholder organisations and labour market parties), industry colleagues, suppliers, employees and portfolio companies. It was gratifying to note that the workshop showed, in the view of many different stakeholders, that the AP Funds have been very successful at communicating their sustainability work. The findings and results from the meeting have made a valuable contribution to AP4's work on developing its prioritisation of sustainability aspects in its operations, reporting and communication.

A summary of the meeting is available at www.ap4.se and in AP4's 2017 Sustainability and Corporate Governance Report.

Dialogue necessary for sustainability

A dialogue with AP4's stakeholders can consist of individual or group meetings, or be conducted via presentations, conferences, evaluations and the media. Through these dialogues AP4 gains a

better understanding of its various stakeholders' expectations. The stakeholders, in turn, gain a greater understanding of the work that AP4 conducts, the frameworks that AP4 works within, and the risks and opportunities that can be coupled to how AP4 conducts its operations in both the short and long term.

Transparency a guiding principle

Transparency is a guiding principle for AP4 and essential for earning trust — both as a major, long-term investor and as a government agency. AP4 has many different stakeholders, and to facilitate external stakeholders' understanding, reviews and evaluations, a high level of transparency is important. AP4 strives for transparency in its reporting and communication as far as possible without being a detriment to its operations.

Reviewed and evaluated by several stakeholders

An AP Fund's operations and the review of such are regulated by law.

- The AP Funds' boards are appointed by the government. The Board monitors and continuously evaluates the asset management activities.
- External auditors conduct an annual audit of the operations and accounts.
- The government performs a special evaluation every year. In such an evaluation, consultants are brought in for a few weeks to conduct interviews and to analyse and evaluate the operations as well as a number of special areas within the operations. This review is summarised in an open report that is submitted to the Riksdag every year. The government's evaluation is a source of vital feedback and contributes to AP4's work on developing its operations.

On top of this, the AP Funds are a natural area of focus for the media and subject to the review and opinions of various stakeholder organisations.

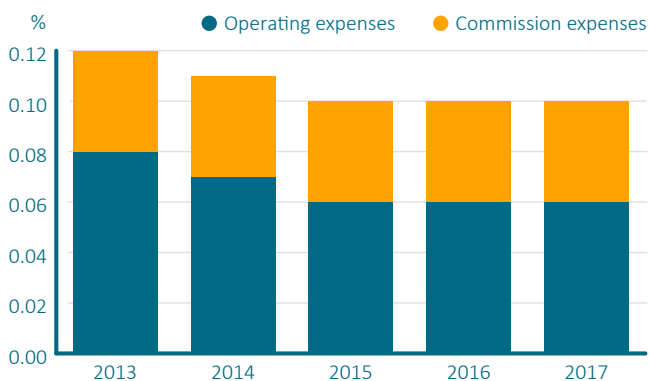
High quality at low cost

Focus on costs is important for achieving the goal for maximum sustainable returns over time. High quality at a low cost — or cost efficiency — is therefore a guiding principle for AP4.

Total management cost is 0.10 %

AP4's total management cost was 0.10% (0.10%) in 2017, measured as a percentage of average fund capital. The management cost consists of operating expenses and commission expenses

Low management costs over time



Operating expense ratio of 0.06 %

Operating expenses consist mainly of personnel costs, IT costs and costs for premises. AP4's operating expense ratio, measured as operating expenses as a percentage of average fund capital, was a low 0.06% (0.06%).

During the last five years AP4's operating expense ratio has decreased from approximately 0.08% to 0.06% today. In absolute amounts, operating expenses have increased by SEK 35 million since 2012, corresponding to an annual increase of 3.6%. During

the same five-year period AP4's assets under management grew by just under SEK 127 billion, to SEK 357 billion. This corresponds to annual growth of 9.2%.

Commission expense ratio of 0.04 %

Commission expenses consist mainly of fees paid to external asset managers and custodian fees. AP4's commission expense ratio, i.e., external asset management costs in relation to assets under management, was 0.04% (0.04%). This is low in relation to comparable funds, both nationally and internationally.

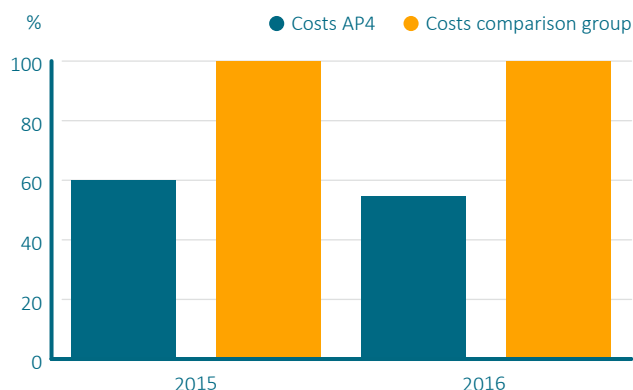
During the last five years the commission expense ratio grew by 0.02 percentage points, from just under 0.02% to just under 0.04%. This is a natural development, as AP4 has increased its share of active external management. Commission expenses are often directly related to the total value of externally managed assets and therefore account for an increasing share of AP4's total management costs.

An analysis of AP4's external management costs in absolute amounts in Swedish kronor, instead of as a share of fund capital, shows that commission expenses increased from SEK 39 million in 2012 to SEK 132 million in 2017. This represents an annual increase of 28% during the period and is explained by an express strategy to increase the share of active external management aimed at generating value-added in the return after costs.

AP4 is cost-efficient in an international comparison

AP4's cost level is 46% lower than a selection of comparable international pension funds, according to an independent survey conducted by CEM Benchmarking. The comparison included 19 pension funds, where AP4 was one of two funds with the lowest costs. The comparison was performed after adjusting for allocations to various asset classes and management strategies. Excluding such an adjustment, AP4's cost level was only roughly a third of the comparison group's costs.

Internal asset management



Internal asset management

AP4 strives to manage assets internally when it is deemed to be cost-effective, i.e., if AP4 can generate equal or higher returns for the same or lower cost than corresponding external management provided that the right resources, expertise and experience exist at AP4.

A larger share of internal management gives rise to higher operating expenses, such as for IT systems, index costs and personnel costs for handling greater transaction volumes. This increase in operating expenses is compensated by lower commission expenses for external asset management.

Statutory requirement to procure external asset management

AP4 is subject to a statutory requirement that at least 10% of assets are to be managed externally. During the last five years an average of 22% of assets have been managed externally. These externally managed assets include equity funds, discretionary management and private equity funds.

When external management of, for example, listed equities is outsourced, AP4 pays an asset management fee. This fee is typically set in relation to the volume of assets managed. These external management fees are reported as commission expenses in the income statement.

Growth in value results in higher costs

AP4 benefits when externally managed assets grow in value, but it also means that AP4 pays more in commission expenses in monetary amounts since the external asset management fee is typically related to the volume of managed assets. The commission fees paid to external asset managers thus rise the more the underlying assets grow in value, and they fall if the assets decline in value. Commission expenses in 2017 totalled SEK 132 million.

AP4 strives to negotiate and pay the lowest fee possible for the selected management strategy for an estimated maximum risk-adjusted return. The lowest absolute cost is therefore not always an accurate measure. Costs are steered by the choice of asset classes and asset management strategy. The goal is to achieve a high risk-adjusted return after costs.

Fees for external asset management

For external management, the level of commission fees varies depending on the type of external asset management procured. This is due in part to asset classes, markets, the strategy, and the degree of active management. The price varies depending on the managers' historical track record or whether they offer a relatively unique form of management. The cost is also affected by the level of administration and service required by AP4. In negotiations with external managers it is an advantage to be a professional, long-term and large asset manager like AP4.

The expected return and risk diversification of assets are critical factors in decisions on external management. Such decisions are based on a consideration of the expected risk-adjusted return after costs and the diversification of risk that various external mandates can provide for AP4's total asset portfolio.

Decrease in transaction costs

AP4's management cost for securities transactions have increased at a slower pace than the assets' growth in value. Transaction costs therefore account for only a small portion of commission expenses, even though the number of transactions has risen. This is partly due to the fact that electronic securities trading and competition have put pressure on brokerage and other fees.

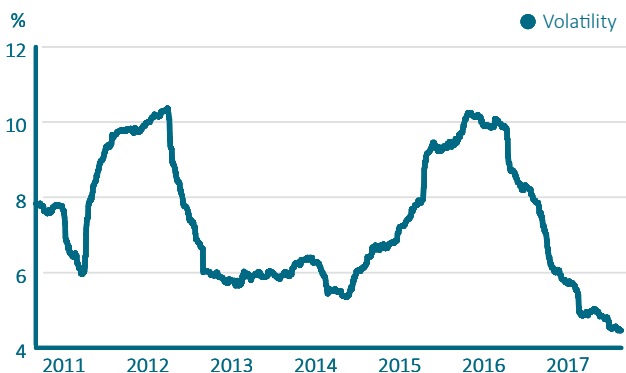


Portfolio risk 2017

Decrease in portfolio risk in 2017

AP4 has high exposure to equities, which is necessary given the goal of generating a high real rate of return over time. This consists mainly of listed, liquid shares that are invested globally. During the past year, volatility in both the global and Swedish equity portfolios decreased sharply. In total, the portfolio risk for AP4’s liquid assets, measured with a 12-month historical standard deviation, decreased to 4.5% (7.8%) at year-end.

Volatility of liquid assets



The chart above illustrates the market risk of liquid assets measured with a 12-month historical standard deviation.

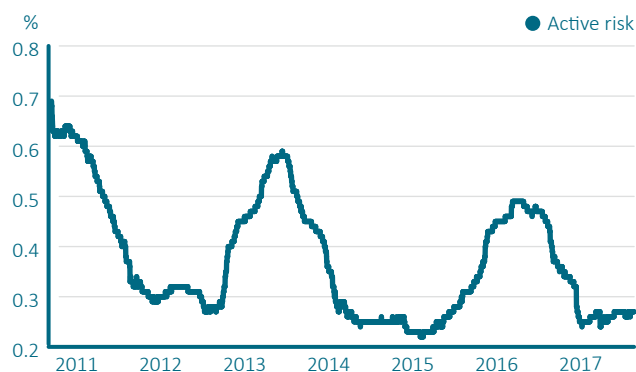
Using changes in market movements as a measure of risk is standard practice, but it also entails a risk for inaccuracy due to the very long-term investment horizon of the portfolio. For this reason, AP4 works with a range of investment horizons, where consideration is given to developments in the near term without losing sight of the long-term target.

One clear risk of AP4 not achieving its targets over time is the statutory requirement that a minimum of 30% of assets are to be invested in fixed income securities with low credit and liquidity risk. With an average interest rate near 0%, this statutory requirement forces AP4 to search for alternatives that can compensate for the low yield on these fixed income assets.

Reduced active risk

The active risk for AP4’s active management with an investment horizon of up to three years, measured on 12-month historical basis, decreased slightly during the year to 0.3% (0.3%). The strategic management’s active risk decreased to 2.2% (2.7%).

Active risk for management with investment horizon up to three years



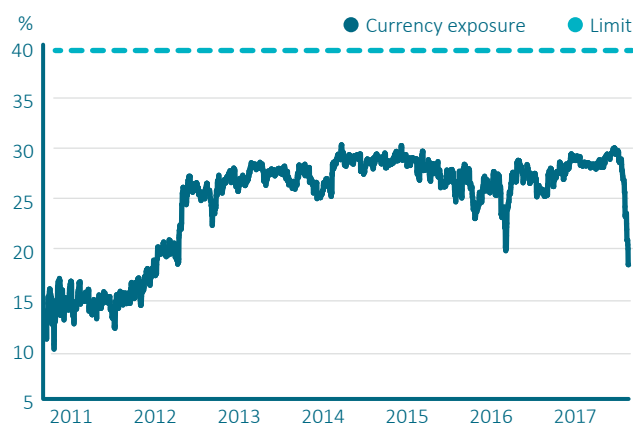
Interest rate risk

Interest rate risk during the past year, measured in terms of modified duration, fluctuated within the range limit set for the fixed income portfolio.

Currency exposure

AP4's open currency exposure for the total portfolio fluctuated between 18% and 30% during the year. AP4 had the greatest exposure against the US dollar, which weakened against the Swedish krona during the year.

Currency exposure of total portfolio



Sovereign exposures

AP4's sovereign exposures with credit ratings below AAA3 in the Eurozone area decreased during the year.

Sovereign exposures in the Eurozone area with credit ratings below AAA³, 31/12/2017

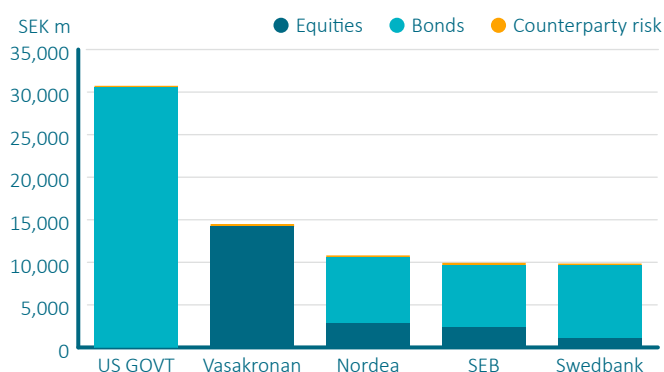
UK ¹	4,752	6,469	7,103
France	3,579	3,686	1,513
Spain	1,243	-	-
Belgium	862	866	520
Austria	403	407	331
Finland	288	288	264
Italy	-	-	3,486
TOTAL	11,128	11,716	13,217

Exposure to issuers

AP4 has large exposure to the banking and financial sector. The 15 largest holdings represented a total exposure of SEK 55 billion (50), of which SEK 42 billion (39) pertained to exposure to the Swedish banking and financial sector.

AP4's five largest issuers represented an aggregate exposure of slightly more than SEK 75 billion (72).

Total exposure to the five largest issuer categories

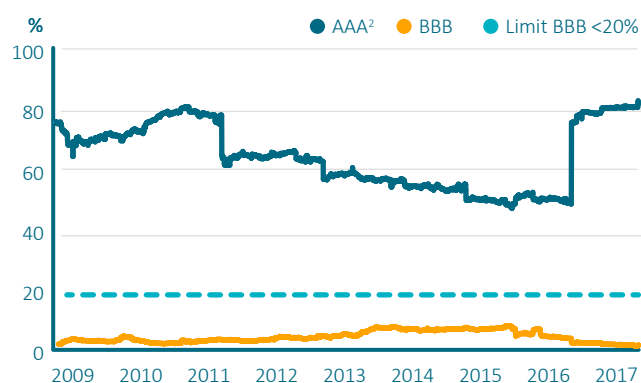


The chart above shows exposures in SEK million per issuer as per 31/12/2017.

Credit risk

The share of listed AAA3 rated bonds fluctuated between 75% and 83% of the fixed income portfolio during the year. The share of BBB3 rated bonds, which is the lowest credit rating in the portfolio, averaged 2%.

Bond holdings in the fixed income portfolio³



The chart above shows the share of AAA³ and BBB³ rated bonds as well as the internal limit levels.

¹The UK is not included in the Eurozone, but has nevertheless been included in this compilation.

²The two sharp movements in the series for the share of AAA-rated bonds pertain to August 2011, when AP4 chose to downgrade the credit rating of US government bonds, and five years later, in December 2016, when AP4 chose to revise its previous assessment.

³The credit ratings presented here refer to an internal standard. For 2017 this standard is based on the rating assigned by the chosen rating agency (Moody's Analytics UK Ltd).

Employees

To succeed as a pension fund it is important that AP4's employees feel engaged, motivated to develop in their work and committed to making the operation as a whole work to the best of its potential. This has been a key factor behind AP4's success at delivering a high return at a low cost for many years.

At year-end 2017 AP4 had 53 employees (54), of whom 22 (20) worked in asset management and 31 (34) in business support, control and staff functions.

Culture and core values

Since asset management is a knowledge-intensive activity in which competent employees are a key success factor, in 2017 AP4 worked with an HR strategy aimed at putting AP4's values into practice and addressing future challenges associated with the organisation's long-term development and competency needs. AP4 works in an environment characterised by a rapid pace of change, which makes it important to foster a culture that promotes professionalism, innovative thinking, implementation strength and cooperation. During 2017 AP4 worked on developing and establishing support for these core values in its operations.

Employees

To promote long-term good health, all employees are offered regular health check-ups and a fitness subsidy. AP4 conducts market salary surveys on a regular basis to ensure that salary levels and remuneration packages are competitive and reasonable.

See the table and key ratios for AP4's employees on page 44.

Employee survey

For the past several years AP4 has conducted yearly employee surveys aimed at identifying issues of central importance for

ensuring that employees enjoy their work, feel motivated and continue to develop. The results of annual surveys are followed up and analysed on a continuous basis.

The areas in need of improvement that have been identified in the employee survey are addressed through a systematic process. Every unit in the organisation discusses the survey results, and an employee group is formed every year with representatives from the various units. The employee group is tasked with coming up with concrete activities for continued improvement work in the areas identified in the employee survey. In general the 2017 survey showed good and improved results in all areas. The results of the survey were reported internally and addressed in accordance with AP4's process for improvement.

Personnel and ethics-related policies

Every year AP4's board of directors adopts a personnel and ethics-related policy that is based on statutory regulations as well as ethical rules. The CEO also formulates a number of internal guidelines that are appended to the policy each year. The policy and guidelines include rules on matters such as public procurement, remuneration and benefits, business travel, entertainment, employees' personal trading in securities, insider information and side jobs. AP4's policy also includes rules regarding bribery and conflicts of interest.

Each employee at AP4 is personally responsible for complying with the rules in the above-mentioned policy and its underlying guidelines. Complex issues are to be addressed in consultation with the employee's immediate superior. The personnel and ethics-related policy described above forms part of AP4's introductory training for new employees.



AP4's core values



Development work in HR and IT

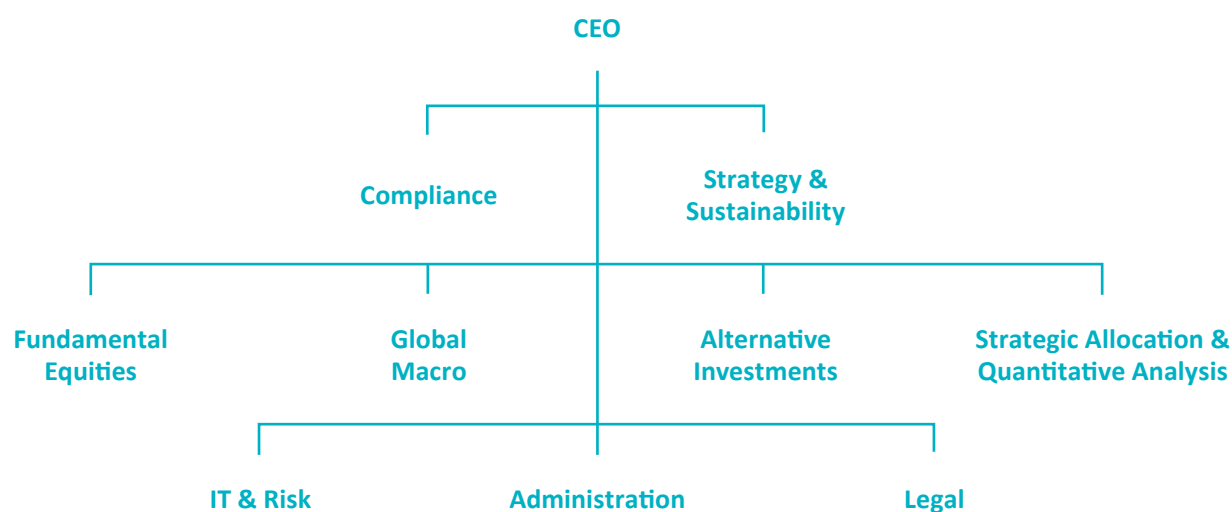
Competent and motivated employees, and a modern and functional IT platform are key success factors in modern asset management. It is for this reason that AP4 worked in 2017 on an upgrade of its HR and IT strategies.

The HR strategy aims to put our values into practice and address future challenges associated with ensuring the organisation's long-term development and competency needs. AP4 works in an environment characterised by a rapid pace of change, which makes it important to build a culture that promotes professionalism, innovative thinking, implementation strength and cooperation. During 2017 AP4 worked on developing and establishing support for these core values in its

operations. In addition, during the year AP4 carried out a reorganisation that makes us better suited to meet our future, strategic challenges and to achieve even better performance from AP4's aggregate competence.

AP4 has also worked on upgrading the Fund's IT strategy, which lays out a vision for AP4's future IT platform and system environment and for how AP4 will achieve this vision step by step in the coming years without disrupting operations. The aim is to find an optimum balance between operational efficiency and the need for necessary flexibility to support the needs of the investment operations.

Organisation



Asset management is organized into four units: Fundamental Equities, Global Macro (fixed income securities, currencies and equity indexes), Alternative Investments, and Strategic Allocation & Quantitative Analysis.

Administration is organised into the units Back Office, Finance & Accounting, Office Administration and HR.

The IT & Risk unit manages the IT platform and performs risk and return analyses.

The Legal unit works with legal support, contract negotiation and interpretation of laws and regulations.

Compliance reports directly to the CEO.

The Strategy & Sustainability unit assists the CEO on matters concerning strategy, sustainability, communication and CEO support.

AP4's direct environmental impacts	2017	2016	2015	2014
Total electricity use in own offices, kWh/m ²	106	70	69	70
District cooling use in own offices, kWh/m ²	42	55	67	67
Use of heat in own offices, kWh/m ²	35	64	64	70
Use of water, m ³ /m ²	0.4	0.5	0.4	0.4
Use of paper, kg/employee	21	18	20	20
Ecolabelled paper as share of total paper use, %	100	100	100	100
Business travel by air, km 10,000s	46	57	64	57
Business travel by air, emissions tons CO ₂	52	63	75	64

Key ratios — employees	2017	2016	2015	2014	2013
Number of employees, average	54	53	55	56	54
of whom women, %	35	37	38	36	33
Number of persons in Executive Management, average	7	8	7	5	5
of whom women, %	27	25	29	40	40
Average age	44	44	44	44	43
Personnel turnover, %	11	11	11	9	2
Sickness-related absence, %	1.6	3.3	2.9	0.9	1.3

Awards

AP4's asset management and sustainability work and reporting attract positive attention in various contexts, both in Sweden and internationally. During 2017 AP4 received numerous awards in addition to an award received by the Council on Ethics of the AP Funds.



AP4 ranked 8th globally by Asset Owners Disclosure Project (AODP) Global Climate 500

AP4 was ranked number eight in the world in competition with 500 international institutional investors for its management of climate risk in investments. AP4 received the highest score, AAA.



Sweden's most influential people regarding sustainability

Swedish sustainability magazine Aktuell Hållbarhet ranked John Howchin, Secretary-General of the Council on Ethics of the AP Funds, number 20 on its list of the most influential persons regarding sustainability in Sweden in 2017.

Every year Aktuell Hållbarhet ranks Sweden's most influential people regarding the environment to spotlight good models and people who set the agenda for environmental and sustainability issues and drive development in a more sustainable direction.

The jury's citation: "Under John Howchin's leadership the Council on Ethics of the AP Funds has strengthened the work with ethical issues in the foreign companies in which the AP Funds have shareholdings. John Howchin is an adept negotiator who knows the art of bringing together influential investors to discuss and drive important and difficult sustainability issues."



IPE Awards 2017 — five nominations

AP4 received five nomination at the 2017 IPE Awards in competition with more than 440 contributions from 24 countries.

- Long-term Investment Strategy
- Sweden Country Award
- ESG — Ethical and Corporate Governance
- In-house Investment Team
- Sovereign Reserve Fund

IPE Gold Award 2017

— Long-term Investment Strategy

IPE gave AP4 its IPE Gold Award 2017 for Best Long-term Investment Strategy with the citation: "An extremely sophisticated investor with a strong corporate governance structure, AP4 is undoubtedly among the best in the business."



Responsible Investor (RI) Awards 2017

The Responsible Investor (RI) Awards presented AP1, AP2, AP3 and AP4 and institutional investors from the Netherlands with the distinction Commended for Innovation & Industry Leadership Collaborations for their collaboration on investments that support the UN's global Sustainable Development Goals.

Directors' report 2017

With a positive return of 9.1 % (10.0 %) after costs, corresponding to a net result of SEK 30 billion (31), fund capital increased to SEK 357 billion (334).

Fund capital SEK 357 billion

Fund capital increased by SEK 22.7 billion (23.9) to SEK 356.6 billion (333.9).

The positive change in fund capital consists of net result for the year, totalling SEK 30.1 billion (30.5) — i.e., the return for the year less management costs and net payments to the public pension system.

Change in fund capital, SEK billion	2017	2016
Fund capital, opening balance	333.9	310.0
Net payments to the pension system	-7.4	-6.6
Profit for the period	30.1	30.5
FUND CAPITAL, CLOSING BALANCE	356.6	333.9

Net payments to the pension system amounted to SEK 7.4 billion (6.6), which reduced fund capital by the same amount. AP4 has paid out an accumulated total of SEK 44 billion to the pension system since the system's net flow became negative in 2009.

A basic principle of the Swedish public pension system is that it is to be generation-neutral. The AP Funds' capital is buffer capital, which is to be used to compensate demographic changes between various generations. In other words, money is taken out of the AP Funds when there is a deficit in the pension system, which is the case today, mainly because the number of actively working people is relatively fewer than the current generation of pensioners.

During the next just over 20 years the pension system is expected to use capital from the AP Funds to balance the system's obligations.

Total return 9.2 % before costs

The total return was 9.2% (10.1%) before costs and 9.1% (10.0%) after costs. The return corresponds to an asset management profit after costs of SEK 30.1 billion (30.5).

Cost-efficient management

AP4's total costs consist of internal operating expenses for running the operations and external commission expenses made up of external, fixed management fees and variable custodian costs.

A high, sustainable return requires good diversification of risk, which is achieved in part by investing in various asset classes and pursuing various asset management strategies. The costs vary widely, depending on such factors as the degree of active management, the complexity of investments, and liquidity.

At the same time, different asset classes and asset management strategies have different risk and return expectations, resulting in a portfolio with an expected good diversification of risk and high long-term returns. However, cost efficiency is always in focus, and alternative ways of working and creating value are evaluated on a continuous basis.

Management costs, measured as operating expenses as a percentage of average fund capital, were 0.06% (0.06%).

Management costs	2017	2016
Operating expenses, SEK m	213.9	195.1
Commission expenses, SEK m	132.3	131.7
Operating expense ratio, % ¹	0.06	0.06
Operating expense ratio, % ²	0.10	0.10

¹ Operating expenses as a percentage of average fund capital.

² Operating expenses including commission expenses as a percentage of average fund capital.

Management costs including commission expenses, such as fees paid to external asset managers and custodian costs, were 0.10% (0.10%) measured as operating expenses in relation to average fund capital.

In both domestic and international comparisons with other pension funds, AP4's management costs — both including and excluding commission expenses — are low and very competitive.

Extensive development work

AP4 conducted extensive development work during the year to improve its opportunities to meet the long-term challenges facing the global economy as well as the climate changes that affect the assets that AP4 invests in.

A new investment policy and a sustainability policy were drawn up and adopted. A new long-term return target complemented with a medium-term target was set. The asset management structure, decision-making structure and organisation were overhauled in order to better capitalise on the investment opportunities identified by the asset management and manage these in a structured manner. The new targets and asset management structure apply starting in 2018.

Following is an operational overview in accordance with the structure that AP4 worked according to in 2017.

Sustainability central

Sustainability is central to AP4's investment philosophy. Integration of sustainability is prioritised in the day-to-day asset management. During the year a sustainability policy was drafted and adopted, which serves as the framework for integration of sustainability in the asset management activities. With a starting point in the sustainability policy, extensive development work was conducted involving integration and further development of sustainability considerations in the investments.

AP4 uses various tools along with its asset management mandate to integrate sustainability, which over the long term is expected to lower risk in the portfolio and create business opportunities. During the year it was determined that Climate & Environment and Corporate Governance will be two focus areas for AP4. These have been chosen — among other reasons — because they have been determined to be essential for the returns and performance of all assets. Within these focus areas it is believed that AP4's knowledge, experience, engagement and opportunities to influence will be able to make a difference and influence the assets' returns in a positive direction over the long term.

Asset management structure — three time horizons

During 2017, and since 2013, AP4 has worked with an asset management structure comprising three investment horizons (up to three years, 3—15 years and 40 years). The Board decides on the composition in the longest of these and sets mandates and return targets for the other two investment horizons.

Positive contribution from all horizons

Of the asset management result before costs in 2017, totalling SEK 30.4 billion (30.9), SEK -3.6 billion (3.2) was attributable to management of assets with investment horizons of 3—15 years and up to three years.

During the last five years, all investment horizons have made positive return contributions. The total profit contribution over five years was SEK 159 billion. Asset management with an investment horizon of 3—15 years contributed SEK 17.3 billion, and the corresponding contribution from asset management with a time horizon of up to three years was SEK 3.3 billion.

Investment horizon 40 years (Normal portfolio)

AP4's reference portfolio consists of indexes and has a time horizon of 40 years. AP4's board decides on the composition of the reference portfolio.

In 2017 the reference portfolio made a positive contribution of 10.3 percentage points (9.1), corresponding to a return contribution of SEK 34.1 billion (27.7). Accumulated over five years, the reference portfolio has made a return contribution of SEK 139.0 billion.

Investment horizon 3—15 years (Strategic management)

Asset management with an investment horizon of 3—15 years made an overall negative active contribution to AP4's total return by -1.3 percentage points (1.0) for 2017. This corresponds to SEK -4.4 billion (3.1) in active return contribution.

The accumulated return contribution during the five-year evaluation period was positive and totalled SEK 17.3 billion. The largest contributors were real estate and Swedish equities, accounting for SEK 10.0 billion and SEK 7.7 billion, respectively.

Investment horizon up to three years (Tactical management)

Asset management with an investment horizon of up to three years made an overall active return contribution of SEK 750 million (87) for 2017. During the last nine years this asset management horizon has made a positive return contribution of just under SEK 9 billion.

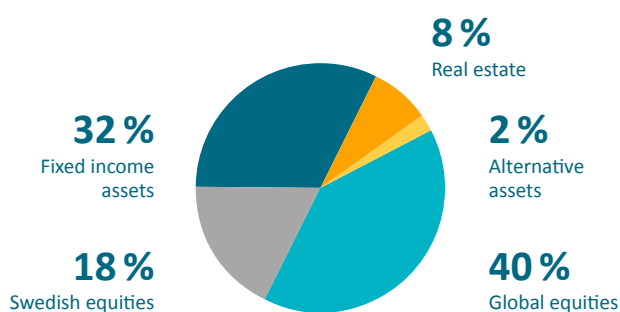
The active return in 2017 for asset management up to three years was 0.4 percentage points (0.0). For the rolling three-year evaluation period, the positive active return averaged 0.2 percentage points (0.3), which is below the 0.5 percentage point target.

Asset allocation

	Active profit contribution, %	Active profit contribution, SEK m
Global equities	0.3	937
Swedish equities	0.0	-150
Fixed income assets	0.0	57
Equity indices	0.0	-96
Currency	0.0	1
TOTAL TACTICAL MANAGEMENT POSITIONS	0.2	750

Listed equities, broken down into global and Swedish equities, accounted for more than half of assets at year-end. AP4's other assets consisted of fixed income securities, real estate and alternative assets. Changes in allocations were made mainly within the respective asset classes, with only a minor impact on the allocation between the asset classes. During the year AP4 chose to reduce its currency exposure to 18.4% (26.9%).

Equities more than half of assets¹



¹ Fixed income assets include cash and cash equivalents.

Asset class	Market value, SEK bn	Portfolio return, %	Exposure ² , %
Equities, total	207.2	15.7	58.1
Global equities	142.5	19.3	40.0
Swedish equities	64.7	8.4	18.1
Fixed income assets	112.0	0.0	31.4
Real estate	28.8	18.7	8.1
Alternative assets	8.2	10.9	2.3
Currency	0.0	-1.1	0.0
Other ⁵	0.5	-0.2	0.1
TOTAL INVESTMENTS⁴	356.7	9.2	100.0

² Underlying values of derivative instruments in the passive allocation are distributed among the respective asset classes.

³ Consists of cash and cash equivalents, and strategic and tactical asset allocation.

⁴ Return before costs. The return after costs was 9.1%.

Equities — six consecutive years of positive performance

Global and Swedish equities accounted for more than half of assets. At year-end the exposure was 58.1% (58.3%) of assets, divided into 40.0% (39.4%) global equities and 18.1% (18.9%) Swedish equities. Of global equities, 87.7% (89.2%) were in developed markets and just under 12.3% (10.8%) were in emerging markets.

The market value of listed equities was SEK 207.2 billion (194.8).

The world index (MSCI ACWI) performed positively for the sixth year in a row. Performance for global equities was stable during the entire year, and volatility was very low. Performance in Sweden in 2017 was weaker than the world index, and volatility was higher.

The return was 19.3% (7.3%) for AP4's global equities and 8.4% (12.4%) for Swedish equities.

Fixed income assets in a low-interest environment

AP4 is required by law to have at least 30% of its assets invested in liquid fixed income securities with good credit ratings. At year-end, 31.4% (32.1%) of assets were invested in such fixed income assets. Of these, 51.9% were in government bonds. Other listed bonds consisted of mortgage bonds and corporate bonds. The market value of fixed income assets was SEK 112.0 billion (107.1).

The return for AP4's fixed income portfolio was 0.0% (2.0%).

Real estate generated high return

AP4's real estate portfolio consists mainly of directly owned real estate companies. At year-end, the real estate portfolio accounted for a total of 8.1% (7.3%) of AP4's assets.

The market value of the real estate portfolio was SEK 28.8 billion (24.5).

Growth in value of real estate was high, and the total return for the year was 18.7% (25.9%).

Alternative assets

Alternative assets consist mainly of private equity funds and high-yield fixed income assets. At year-end 2.3% (3.3%) of assets were invested in alternative assets.

The market value of alternative assets was SEK 8.2 billion (7.8).

All alternative assets are managed externally and together generated a return of 10.9% (3.4%).

Negative contribution from currencies

AP4 hedges large parts of its assets denominated in foreign currency. Currencies are managed according to a currency policy, which determines the open currency exposure in AP4's reference portfolio.

By law, AP4's currency exposure may amount to a maximum of 40% of AP4's total market value. The open currency exposure at year-end was 18.4% (26.9%). This made a negative return contribution of -1.1 percentage points (2.3), corresponding to SEK -3.6 billion (6.6). The Swedish krona strengthened against most currencies during the year, except for the euro. A significant strengthening of the US dollar contributed to the negative return contribution.

Other

"Other" includes cash and cash equivalents as well as tactical and strategic asset allocations in the form of so-called overlay mandates. Altogether the return contribution from these items was -0.2 percentage points (-0.2).

Changes in personnel

Employee turnover at AP4 was 11% during the year. At year-end 2017 the number of employees was 53 (54).

Remuneration

For a manager of public pension funds it goes without saying that employee remuneration levels must be reasonable, justifiable and quantifiable. AP4 strives to ensure that remuneration is in line with the market and enables the Fund to attract and retain talented employees. AP4 shall not be a salary leader.

The Board bears ultimate responsibility for ensuring that remuneration issues are dealt with responsibly, sensibly and transparently. Every year the Board determines principles for remuneration and other terms of employment. The Board monitors compliance with government's guidelines for terms of employment for senior executives in the AP Funds. The Board solicits the help of external consultants to monitor compliance with the remuneration principles.

The Board has appointed a remuneration committee made up of three board members. The committee is tasked with serving in an advisory role for the Board and for drafting remuneration matters

for the CEO and senior executives. The Remuneration Committee also conducts drafting work for matters related to AP4's principles for remuneration and other terms of employment for all employees.

Total remuneration for AP4 employees consists of fixed salary, variable salary, pension provisions and other benefits. The CEO, senior executives, and the Compliance officer and Head of Risk Control do not receive any variable remuneration.

For other employees, variable remuneration can amount to a maximum of two months' salary upon the achievement of clear and measurable goals. Variable remuneration is based on group-oriented and personal quantitative goals measured over a rolling three-year period. Variable remuneration is payable only if AP4 posts a positive total profit for the financial year.

Other benefits are of limited value and are offered to all employees. Examples include health insurance, group insurance and fitness subsidies. AP4 also has four parking spaces that employees can use whereupon they are taxed for the benefit.

Read more under Note 6 and in the section AP4's fund governance, on page 74.

Cost efficiency through collaboration with other AP Funds

The existence of four independent buffer funds has contributed to well-working and sound competition, which in turn has contributed to cost-efficient asset management. It has also led to a distribution of economic power, which the AP Funds' capital represents, so that it is not overly concentrated.

In areas that do not risk inhibiting competition, the AP Funds can collaborate to achieve cost savings and efficient use of resources.

One of the more important areas of collaboration is within the auspices of the Council on Ethics of the AP Funds, which draws attention to issues and carries on a dialogue with listed companies to influence them to make improvements regarding environmental and ethical issues.

An additional nine cooperation teams work on standardisation and efficiency improvements in administration of the AP Funds, share knowledge and experience, and conduct joint tendering processes.

Increased cooperation

Since 2016 the CEOs of AP1, AP2, AP3 and AP4 have directed greater focus on cooperation between the funds in the aim of achieving greater cost efficiency, creating synergies and ensuring a relevant exchange of experience, knowledge and work methods between the organisations. This cooperation is already being conducted in a number of established forums and will be intensified on a project basis.

The Funds cooperate primarily in the following areas:

- Environment and ethics (conducting joint dialogues with foreign listed companies to advocate for improvements, share experience and coordinate suitable indicators for climate risk, joint stakeholder dialogues, etc.)
- Corporate governance (voting platforms, etc.)
- Legal and compliance (rules and regulations, tendering processes, filing, etc.)
- Finance (accounting)

- Back office (systems, custodians, clearing houses, etc.)
- IT (system administration structures, tendering processes, licences, application solutions, etc.)
- Risk control and return analysis
- HR (salary mapping, development programmes for specialists at the AP Funds, etc.)
- Communication (joint knowledge-building seminars for industry colleagues and other interested parties, external activities for students at technical and business colleges, etc.)

Examples of cooperation between the AP Funds

The most extensive cooperation is conducted within the Council on Ethics of the AP Funds (The Council on Ethics), a collaborative body formed in 2007 by AP1, AP2, AP3 and AP4. The Council on Ethics is made up of two to three representatives from each of the AP Funds and a common secretary general. Acting jointly with the backing of the AP Funds' collective capital creates greater opportunities to influence a company to make improvements compared with if the Funds were to act individually on their own. The Council on Ethics is also an attractive partner for other international investors with similar agendas for environmental and ethical issues, which further increases opportunities to influence. Through this cooperation the AP Funds' work is more efficient in terms of time and costs, as it allows for more company dialogues, international investor initiatives and conferences in which the Council on Ethics is represented.

To cost-effectively vote at general meetings of companies in the Fund's global equity holdings, AP4 uses an electronic voting platform that it shares together with AP1, AP2 and AP3. However, each AP Fund votes independently on behalf of its respective holdings.

Another example of cooperation between AP1, AP2, AP3 and AP4 is the jointly prepared document "The AP Funds' accounting and valuation principles", which aim to ensure that the AP Funds apply uniform accounting principles and that their annual reports are thereby comparable. The document is updated on a regular basis and is discussed yearly with the AP Funds' auditors.

In tendering processes, the Funds cooperate on a continuing basis to ensure that these are conducted jointly where possible. For example, during the year the Funds were able to coordinate certain tenders for register services, recruitment services and salary administration services.

Significant events after the end of the financial year

No significant events have taken place since year-end 2017 that require disclosure.

Financial statements and note disclosures

Five-year overview

Key ratios, as per closing date	2017	2016	2015	2014	2013
FUND CAPITAL, FLOWS AND RESULT, SEK BILLION					
Fund capital	356.6	333.9	310.0	294.9	259.7
Net flows to the pension system	-7.4	-6.6	-4.9	-5.1	-6.9
Net result for the year	30.1	30.5	20.1	40.2	37.0
RETURN, %					
Return, total portfolio before costs	9.2	10.1	6.9	15.8	16.5
Return, total portfolio after costs	9.1	10.0	6.8	15.7	16.4
Return, total portfolio after costs, annualised 5 yrs	11.5	12.0	9.7	10.5	11.6
Return, total portfolio after costs, annualised 10 yrs	7.3	6.7	6.7	7.6	7.2
OPERATING EXPENSE RATIO AS % OF AuM (ANNUALISED)					
Operating expenses	0.06	0.06	0.06	0.07	0.08
Operating expenses and commission expenses	0.10	0.10	0.11	0.11	0.11
RISK, %					
Total portfolio, ex-post	4.1	7.3	8.8	6.0	5.6
Liquidity portfolio, ex-post ¹	4.5	7.8	9.4	6.4	6.0
Liquidity portfolio, ex-post, 10 yrs ²	9.0	9.1	9.3	8.9	8.6
Sharpe ratio, total portfolio ex-post	2.5	1.5	0.8	2.5	2.8
Sharpe ratio, liquidity portfolio ex-post ¹	2.0	1.2	0.6	2.3	2.5

¹ Refers to liquid assets excluding real estate, private equity funds and high-yield fixed income assets.

² Refers to quarterly date for liquid assets (investments excluding real estate, private equity funds and high-yield fixed income assets).

Cont. **Five-year overview**

Other key ratios, as per closing date	2017	2016	2015	2014	2013
Active return, strategic management before costs ¹	-1.3	1.0	4.8	0.7	1.2
Active return, tactical management before costs ²	0.4	0.0	0.1	0.7	0.5
Inflation	1.7	1.7	0.1	-0.3	0.1
Real return after costs	7.4	8.3	6.8	16.0	16.2
Active risk ex-post, tactical management	0.3	0.3	0.5	0.2	0.2
Currency exposure, %	18.4	26.9	27.0	28.1	28.6
Proportion active management incl. semi-active, %	76.0	69.3	69.9	62.9	58.2
Proportion external management incl. investments in private equity companies, % ²	17.0	22.7	22.4	25.4	22.7
Number of employees on balance sheet date	53	54	55	54	55
ALLOCATION OF INVESTMENT ASSETS, %³					
Equities, total	58.1	58.3	56.9	59.0	59.5
Global equities	40.0	39.4	38.4	40.5	40.1
Swedish equities	18.1	18.9	18.5	18.5	19.3
Fixed income assets	31.4	32.1	33.8	33.0	32.0
Real estate	8.1	7.3	6.6	5.5	5.7
Alternative assets ⁴	2.3	2.3	2.6	2.7	2.7
Other	0.1	-0.1	0.0	-0.2	0.1
TOTAL INVESTMENT ASSETS, %	100.0	100.0	100.0	100.0	100.0

¹ Active return, strategic management evaluated in relation to the normal portfolio.

² Wholly or partly owned real estate is reported as internal management.

³ Refers to exposure; underlying derivative values in the passive allocation have been distributed by asset classes.

⁴ Refers to private equity funds, high-yield fixed income securities and absolute return investments.

Carbon footprint of the listed equity portfolio

Carbon dioxide indicators	2017	2016	2015	2014	2013
Absolute carbon footprint, equivalent to owned share of companies total emissions (million tCO ₂ e) ¹	2.35	2.60	2.45	2.80	3.28
Carbon dioxide intensity, absolute carbon footprint in relation to ownership share of companies' market cap ² , (tCO ₂ e/SEK m) ¹	11.5	14.5	14.0	16.2	23.1
Carbon dioxide intensity, absolute carbon footprint in relation to ownership share of companies' revenues, (tCO ₂ e/SEK m) ¹	13.5	17.6	22.2		
Carbon dioxide intensity, portfolio-weighted mathematical average, (tCO ₂ e/SEK m) ¹	15.3				
Identified market value as share of total fund capital, % ¹	56.5	55.7	56.4		
Identified market value as share of total equities, % ¹	97.2	95.5	99.8		

¹ Key ratio/figures are calculated for the assets in the balance sheet item Shares and participations, listed.

Equity exposure via funds can be included to the extent that information is available about the funds' underlying holdings.

² Market value of listed equity portfolios.

Income statement

SEK million	Note	2017	2016
OPERATING INCOME			
Net interest income	2	153	817
Dividends received		5,736	6,482
Net income, listed shares and participations	3	24,908	12,678
Net income, unlisted shares and participations	4	3,032	3,545
Net income, fixed income assets		-120	1,882
Net income, derivative instruments		1,445	-321
Net income/loss, changes in exchange rates		-4,744	5,786
Commission expenses	5	-132	-132
Total operating income		30,278	30,737
OPERATING EXPENSES			
Personnel costs	6	-130	-117
Other administrative expenses	7	-84	-78
Total operating expenses		-214	-195
NET RESULT FOR THE YEAR		30,064	30,542

Balance statement

SEK million	Note	31/12/2017	31/12/2016
ASSETS			
Shares and participations, listed	8	209,592	197,875
Shares and participations, unlisted	9	29,914	26,254
Bonds and other fixed income assets	10	111,321	107,151
Derivative instruments	11	3,254	2,620
Cash and cash equivalents		5,467	3,057
Other assets	12	2,686	220
Prepaid expenses and accrued income	13	1,375	1,267
TOTAL ASSETS		363,609	338,444
LIABILITIES AND FUND CAPITAL			
LIABILITIES			
Derivative instruments	11	2,265	3,919
Other liabilities	14	4,154	250
Prepaid income and accrued expenses	15	581	355
Total liabilities		7,000	4,524
FUND CAPITAL			
Fund capital, opening balance	16	333,920	310,015
Net payments to the pension system		-7,375	-6,637
Net result for the year		30,064	30,542
Total fund capital		356,609	333,920
TOTAL LIABILITIES AND FUND CAPITAL		363,609	338,444
Pledged assets, contingent liabilities and commitments	17		

Notes to the income statement and balance sheet

The Fourth Swedish National Pension Fund (AP4), corporate identity number 802005-1952, is one of the buffer funds in the Swedish national pension system and has its registered office in Stockholm. The Annual Report for the 2017 financial year was approved by the Board of Directors on 20 February 2018. The income statement and balance sheet shall be adopted by the government.

1 Accounting and valuation principles

According to the Swedish National Pension Funds Act (Lagen (2000:192) om allmänna pensionfonder), the annual report shall be prepared in accordance with generally accepted accounting principles, whereby the assets in which AP4's funds are invested shall be recognised at market value. Based on this premise, AP1—AP4 have drawn up and applied uniform accounting and valuation principles, as summarised below. The AP Funds' accounting and valuation principles are gradually being adapted to International Financial Reporting Standards (IFRS). Since IFRS are under extensive revision, adaptation thus far is focused on the disclosure requirements in IFRS 7 and IFRS 13. A complete adaptation to IFRS would not materially affect the reported results and capital. AP4 meets the requirement to be classified as an investment company in accordance with IFRS 10. In the current IFRS the only major difference is that a statement of cash flows has not been prepared.

Trade date accounting

Transactions in securities and derivative instruments in the money market, bond market, stock market and currency market are recognised on the balance sheet as per the trade date, i.e., at the point in time when the material rights and risks are transferred between parties. The receivable or liability to the counterparty between the trade date and settlement date is recognised under Other assets and Other liabilities, respectively. Other transactions, mainly transactions in unlisted shares, are recognised on the balance sheet as per the settlement date, which is consistent with market practice.

Net accounting

Financial assets and liabilities are recognised net on the balance sheet when there is a legal right to offset transactions and there is an intention to settle net or realise the asset and settle the liability simultaneously.

Translation of foreign currencies

Transactions in foreign currency are translated to Swedish kronor (SEK) at the exchange rate in effect on the transaction date. On the balance sheet date, assets and liabilities in foreign currency are translated to Swedish SEK at the exchange rate in effect on the balance sheet date. Changes in the value of assets and liabilities in foreign currency are broken down into a part attributable

to the change in value of the asset or liability in local currency and to a part attributable to the changed exchange rate. The exchange gain or loss that arises from changes in exchange rates is recognised in the income statement on the line "Net income/loss, changes in exchange rates".

Shares in subsidiaries and associated companies

According to the Swedish National Pension Funds Act, shares in subsidiaries and associated companies are measured at fair value. Fair value is determined using the same methods used for unlisted shares and participations. There is no requirement for consolidated accounts.

Valuation of financial instruments

All of the Fund's investments are stated at fair value, whereby realised and unrealised changes in value are recognised in the income statement. The line Net profit/loss per asset class thus includes realised and unrealised gains or losses. In cases reference is made below to a specific index provider, see the glossary in the annual report for information about the pertinent index. Following is a description of how fair value is determined for AP4's various investments.

Listed shares and participations

For shares and participations traded in a regulated market or trading platform, fair value is determined based on official year-end market quotations according to the Fund's designated index, usually an average price. Holdings not included in an index are valued at quoted prices observable in an active market. Brokerage fees paid are recognised as expenses under Net income, listed shares.

Unlisted shares and participations

For shares and participations not traded in a regulated market or trading platform, fair value is determined based on a valuation obtained from the counterparty or other external party. The reported value is updated when a new valuation has been obtained and is adjusted for any cash flows up to the end of the accounting period. In cases where the Fund has good reason to believe that the valuation is incorrect, an adjustment is made of the received valuation.

Valuations of unlisted participations are made in accordance with the International Private Equity and Venture Capital (IPEVC) Valuation Guidelines, or equivalent principles, and are to be based primarily on transactions with third parties, however, other valuation methods may be used.

Valuations of unlisted shares in real estate companies are based on a market valuation of the properties taking into account a market-based deduction for deferred tax liabilities, to the extent that the stock has not been subject to transactions in a secondary market. This may differ from the valuation of deferred tax liabilities that is used in the accounting of the real estate companies.

Bonds and other fixed income assets

For bonds and other fixed income assets, fair value is calculated based on the official market quotation on the balance sheet date (usually the bid rate) according to AP4's designated index provider. Holdings not included in an index are valued at quoted prices observable in an active market. In cases where an instrument is not traded in an active market, and reliable market prices are not available, the instrument is measured using generally accepted valuation models, which entails that cash flows are discounted to the relevant yield curve.

Interest income includes interest calculated using the effective interest method based on amortised cost. Amortised cost is the discounted present value of future payments, where the discount rate consists of the effective interest rate at the date of acquisition. This means that acquired surplus and deficit values are allocated over the remaining term or until the next interest rate adjustment and are included in recognised interest income. Changes in value attributable to changes in interest rates are recognised in "Net income, fixed income assets", while changes in value attributable to exchange rate changes are recognised in "Net income/loss, changes in exchange rates".

Derivative instruments

For derivative instruments, fair value is calculated based on year-end exchange rate. In cases where an instrument is not traded in an active market and reliable market prices are not available, the instrument is measured using generally accepted valuation models, in which observable market data is used as the input data.

Derivative contracts with positive fair value at the balance sheet date are recognised as assets, while contracts with a negative fair value are recognised as liabilities. Changes in value attributable to changes in exchange rates are recognised in the income statement under "Net income/loss, changes in exchange rates", while other changes in value are recognised as "Net income, derivative instruments". The difference between forward and spot rates for currency forwards is allocated on a linear basis over the term of the contract and is recognised as interest.

Buy-backs

In genuine repurchase transactions, so-called repos, the sold asset remains on the balance sheet and the payment received is recognised as a liability. The sold security is recognised as a pledged asset on the balance sheet among memorandum items. The difference between the settlement in the spot and futures market is allocated over the term and recognised as interest.

Securities lending

Securities lent are recognised on the balance sheet at fair value, while the compensation received for the loan is recognised as interest income in the income statement. Collateral received for loaned securities can consist of securities and/or cash. In cases where AP4 has the right of disposal over cash received as collateral, the collateral is recognised on the balance sheet as an asset and corresponding liability. In cases where AP4 does not have disposal over the security, it is not recognised on the balance sheet, but is specified separately under the heading "Assets pledged, contingent liabilities and commitments". This item also includes the value of securities on loan and their related collateral.

Items recognised directly against fund capital

Incoming and outgoing payments that have been made against the pension system are recognised directly in fund capital.

Commission expenses

Commission expenses are recognised in the income statement as a deduction from operating income. They consist of external costs for asset management services, such as custodian fees and fixed fees to external asset managers as well as fixed fees for listed funds. Performance-based fees, which are paid when asset managers achieve returns above the agreed level where profit-sharing is applied, are recognised as a deduction under net income for the relevant asset class.

Asset management fees for unlisted shares and participations, for which a refund is permitted before profit-sharing and where repayment is deemed likely, are recognised as an acquisition cost and are therefore included in the unrealised result. In other cases, they are recognised as commission expenses.

Operating expenses

All asset management costs, excluding brokerage fees, fees paid to external asset managers and custodian fees, are recognised as operating expenses. Investments in equipment including in-house developed and purchased software are normally expensed as they are incurred.

Taxes

AP4 is exempt from all income tax on investments in Sweden. Taxes on dividends and withholding taxes assessed in certain countries are recognised net in the income statement under respective income classes.

As of 2012, AP4 is registered for value added tax (VAT) and is thereby subject to VAT on purchases made abroad. AP4 is not entitled to recover paid VAT. Expensed VAT is included in the expense item to which it belongs.

Amounts in SEK millions

Amounts in the notes are specified in millions of Swedish kronor (SEK m), unless otherwise indicated.

2 Net interest income

	2017	2016
BONDS AND OTHER FIXED INCOME ASSETS		
Derivative instruments	1,728	1,930
Other interest income	458	387
Total interest income	55	78
Summa ränteintäkter	2,241	2,395
INTEREST EXPENSE		
Derivative instruments	-2,088	-1,578
Other interest expenses	0	0
Total interest expense	-2,088	-1,578
NET INTEREST INCOME	153	817

3 Net income, listed shares and participations

	2017	2016
Net income, listed shares and participations	24,934	12,709
Less brokerage fees	-26	-32
NET INCOME, LISTED SHARES AND PARTICIPATIONS	24,908	12,678

4 Net income, unlisted shares and participations

	2017	2016
Realised gains	223	550
Unrealised changes in value	2,809	2,995
NET INCOME, UNLISTED SHARES AND PARTICIPATIONS	3,032	3,545

Recognition of external asset management fees for unlisted assets is done according to two different principles, depending on whether the respective underlying management agreements permit refunds prior to profit-sharing in connection with future profit-generating divestments or not. In cases where contracts permit such refunds, the refunded fees are recognised as part of the asset's cost and are thereby charged against unrealised net income for unlisted assets. Consequently, refunded management fees have a positive effect on unrealised income. In cases where the contract does not permit refunds, paid fees are expensed directly under "Commission expenses".

During the year a total of SEK 61 (46) million was paid in asset management fees for unlisted assets, of which SEK 61 (46) million allow refunds in accordance with the above principle. Also during the year, SEK 37 (96) million was refunded, and the unrealised result for unlisted shares and participations was negatively affected by SEK 24 million (+50). Paid fees in which contracts did not allow refunds amounted to SEK 0 (0) and are recognised as "Commission expenses", see Note 5, Commission expenses.

5 Commission expenses

	2017	2016
External asset management fees, listed assets	-119	-118
External asset management fees, unlisted assets	0	0
Other commission expenses, including custodian fees	-13	-14
COMMISSION EXPENSES	-132	-132

Commission expenses do not include performance-based fees. Performance-based fees for the year amounted to SEK 44 (13) million and reduced net income for the respective asset classes. External asset management fees for unlisted assets are recognised under commission expenses to the extent agreements do not permit refunds prior to profit-sharing in connection with future profit-generating divestments.

6 Personnel

Number of employees	2017		2016	
	Total	Women	Total	Women
Average number of employees	54	19	53	19
Number of employees, 31 December	53	18	54	19
Number of persons in Executive Management, 31 December	8	2	7	2

Costs for personnel reductions

Costs for personnel reductions in 2017 amounted to SEK 7,975 thousand (1,109) and pertained to compensation for salaries, pension costs and social security costs in connection with personnel reductions.

Salaries and remuneration

Directors' fees are set by the government and were unchanged compared with the preceding year. The Board sets the terms of employment for the CEO based on a recommendation from the Remuneration Committee. Remuneration for the CEO, senior executives, Compliance officer and the head of Risk Control consists of a fixed salary. Every year, under commission by the Board of Directors and Remuneration Committee, an external consultant performs an examination of remuneration levels for senior executives of AP4. The Board can thereby ascertain that AP4 complies with the government's guidelines for remuneration of senior executives of the AP Funds. Read more about remuneration under the heading "Remuneration at AP4" on page 78.

Variable remuneration

The variable remuneration plan is part of AP4's remuneration policy and is adopted yearly by the Board. The plan covers all employees employed more than six months, except for the CEO, senior executives, Compliance officer and the head of Risk Control. The basic principle is that variable remuneration shall be paid for the achievement of excess returns relative to the benchmark and reference indexes, provided that AP4 shows a positive result for the financial year. The maximum outcome for a full-year employee is two months' salary. For 2017, a total of SEK 2,446 thousand (2,747) was expensed for variable remuneration, excluding social security costs.

Pensions and similar benefits

The CEO's employment contract includes special stipulations for pension benefits and severance pay. The contract provides a pension entitlement at age 65, with a pension provision of 30% (30%) of salary. A mutual notice period of six months applies for the CEO. In the event AP4 serves notice, the CEO is also entitled to severance pay equal to 18 months' salary. Severance pay is paid out monthly and is reduced by any other income from salary, assignments or own business.

Other members of the Executive Management as well as other employees have individual employment contracts in which the notice period is based on the applicable collective agreement between the Employers Organisation of the Swedish Banking Institutions (BAO) and the Swedish Confederation of Professional Associations (SACO). Pension entitlements are either defined-benefit solutions in accordance with the applicable collective agreement between BAO and SACO, or defined-contribution solutions in accordance with AP4's pension policy, entailing a pension contribution of 30% of salary amounts higher than 7.5 times the Income Base Amount.

6 Cont. Personnel

All employees are entitled to exchange a portion of their gross salary for pension contributions. In such cases, the pension contribution is increased by 5.8%, which corresponds to the difference between AP4's costs for payroll tax and its cost for the special employer's payroll tax on pension contributions. The procedure is cost-neutral for AP4.

All employees have supplemental health insurance. All persons employed before 1 January 2007 have, in addition to benefits under the pertinent collective agreement, disability insurance for periods of illness lasting longer than three months, for which a benefit is payable to cover 90% of salary amounts lower than 20 times the Base Amount and 80% of salary amounts higher than

20 times the Base Amount. The maximum benefit corresponds to 40 times the Base Amount. Benefits paid out are decreased by benefits payable from Försäkringskassan, SPP and any other insurances.

Other benefits

All employees have the opportunity to purchase group life insurance that is taxed as an employment benefit. The CEO has the right to one parking space, which is taxed as an employment benefit. AP4 has an additional three parking spaces that employees can use, which also is taxed as an employment benefit. The value of these employment benefits in 2017 was SEK 200 thousand (193).

Personnel costs, SEK thousand, 2017	Salaries & remuneration	Variable remuneration	Pension costs	Of which, salary exchange	Social security costs ⁸	Total
Chairman of the Board Sarah McPhee	100	-	-	-	31	131
Other board members ¹	493	-	-	-	131	624
CEO Niklas Ekvall	4,521	-	1,332	-	1,744	7,597
OTHER EXECUTIVE MANAGEMENT MEMBERS						
Head of Global Macro Bengt Lindefeldt	3,046	-	1,269	254	1,265	5,580
Head of Fundamental Equities Per Colleen	2,716	-	1,115	190	1,124	4,955
Head of Administration Susan Lindkvist	1,524	-	1,037	381	730	3,291
Head of IT & Risk Nicklas Wikström	1,613	-	928	317	732	3,273
General Counsel Ulrika Malmberg Livijn	1,515	-	975	375	713	3,203
Head of Alternative Investments, Head of Strategy & Sustainability Tobias Fransson ²	2,082	-	681	-	819	3,582
Head of Strategic Allocation & Quantitative Analysis Marcus Blomberg ³	1,065	-	380	-	427	1,872
Other employees	50,936	2,446	17,369	2,678	20,340	91,091
Total	69,611	2,446	25,086	4,195	28,056	125,199
Other personnel costs						4,462
TOTAL PERSONNEL COSTS						129,661

¹ Individual directors' fees are reported in the fund governance report.

² Head of Strategy & Sustainability as from 29 June 2017.

³ As from 15 August 2017.

⁴ Social security costs also include payroll tax.

6 Cont. Personnel

Personnel costs, SEK thousand, 2016	Salaries & remuneration	Variable remuneration	Pension costs	Of which, salary exchange	Social security costs ⁸	Total
Chairman of the Board Monica Caneman ¹	29	-	-	-	9	38
Chairman of the Board Sarah McPhee ²	74	-	-	-	23	97
Other board members ³	511	-	-	-	138	649
CEO Mats Andersson ⁴	2,622	-	1,374	556	1,157	5,153
CEO Niklas Ekvall ⁵	1,110	-	333	-	430	1,873
OTHER EXECUTIVE MANAGEMENT MEMBERS						
Deputy CEO and Chief Investment Officer Magnus Eriksson ⁶	1,564	-	1,774	990	922	4,260
Head of Global Macro Bengt Lindefeldt	3,244	-	845	-	1,224	5,313
Head of Equities Per Colleen	2,689	-	724	143	1,021	4,434
Administrative Director Susan Lindkvist	1,542	-	985	381	723	3,250
Head of Business & Risk Control Nicklas Wikström	1,558	-	892	317	706	3,156
General Counsel Ulrika Malmberg Livijn	1,539	-	889	317	699	3,127
Head of Alternative Investments Tobias Fransson ⁷	2,069	-	603	-	796	3,468
Other employees	41,899	2,747	16,217	2,546	17,699	78,562
Total	60,450	2,747	24,636	5,250	25,547	113,380
Other personnel costs						3,142
TOTAL PERSONNEL COSTS						116,522

¹ Through 31 March 2016.

² As from 28 April 2016.

³ Individual directors' fees are reported in the fund governance report.

⁴ Through 31 August 2016.

⁵ As from 1 October 2016.

⁶ Through 30 September 2016.

⁷ Member of Executive Management as from 1 July 2016.

⁸ Social security costs also include payroll tax.

7 Other administrative expenses

	2017	2016
Cost of premises	10	12
Information and IT costs	47	46
Purchased services	14	11
Other administrative expenses	13	9
TOTAL OTHER ADMINISTRATIVE EXPENSES	84	78
THE ITEM PURCHASED SERVICES INCLUDES FEES PAID TO THE AUDIT FIRM AS FOLLOWS:		
Audit assignment, PwC	0.8	0.8
Other auditing services, PwC	-	-
TOTAL FEES PAID TO AUDIT FIRM	0.8	0.8

8 Shares and participations, listed

	31/12/16 Fair value	31/12/17 Fair value
Swedish shares	63,345	62,871
Foreign shares	106,857	95,511
Participations in Swedish funds	5,600	5,408
Participations in foreign funds	33,790	34,085
TOTAL SHARES AND PARTICIPATIONS, LISTED	209,592	197,875

The scope of securities on loan as well as collateral received is presented in Note 17. A complete list of shareholdings can be found on AP4's website: www.ap4.se.

8 Cont. Shares and participations, listed

Five largest holdings of Swedish shares, 31/12/2017

	No. shares	Fair value	Capital, %	Votes, %
Atlas Copco	12,952,426	4,269	1.1%	0.7%
Volvo	23,018,774	3,519	1.1%	1.8%
Nordea	28,640,172	2,844	0.7%	0.7%
Hennes & Mauritz	16,550,181	2,802	1.0%	0.5%
Sandvik	17,530,691	2,519	1.4%	1.4%

Five largest holdings of foreign shares, 31/12/2017

	No. shares	Fair value
Apple	1,689,269	2,341
Alphabet	200,662	1,725
Microsoft	2,370,017	1,660
Amazon.com	133,451	1,278
Facebook	771,195	1,114

Five largest holdings of Swedish shares, 31/12/2016

	No. shares	Fair value	Capital, %	Votes, %
Hennes & Mauritz B	15,330,278	3,885	0.9%	0.5%
Atlas Copco	14,136,128	3,685	1.1%	0.8%
Nordea	32,661,353	3,309	0.8%	0.8%
Volvo	25,707,383	2,744	1.2%	1.9%
SEB	27,129,346	2,592	1.2%	1.2%

Five largest holdings of foreign shares, 31/12/2016

	No. shares	Fair value
Apple	1,630,714	1,716
Alphabet	183,723	1,305
Microsoft	2,219,945	1,253
Exxon Mobil	1,107,258	908
Johnson & Johnson	826,808	865

9 Shares and participations, unlisted

	31/12/17 Fair value	31/12/16 Fair value
Shares in Swedish associated companies	23,832	21,031
Shares in foreign associated companies	695	687
Shares and participations in other Swedish unlisted companies	2,770	1,776
Shares and participations in other foreign unlisted companies	2,617	2,760
TOTAL SHARES AND PARTICIPATIONS, UNLISTED	29,914	26,254

Shares in associated companies, 31/12/2017	Corp. ID no.	Domicile	No. shares	Capital, %	Votes, %	Fair value	Capital	Profit
SHARES IN SWEDISH ASSOCIATED COMPANIES								
Vasakronan Holding AB	556650-4196	Stockholm	1,000,000	25	25	15,218	51,377	9,269
Rikshem Intressenter AB	556806-2466	Stockholm	250	50	50	8,614	15,846	2,395
TOTAL SHARES IN SWEDISH ASSOCIATED COMPANIES						23 832		
SHARES IN FOREIGN ASSOCIATED COMPANIES								
ASE Holdings S.à.r.l.		Luxembourg	1,609,214	38	38	222	Not disclosed	Not disclosed
ASE Holdings II S.à.r.l.		Luxembourg	215,023,696	45	45	425	Not disclosed	Not disclosed
ASE Holdings III S.à.r.l.		Luxembourg	5,121,867	35	35	48	Not disclosed	Not disclosed
TOTAL SHARES IN FOREIGN ASSOCIATED COMPANIES						695		

9 Cont. Shares and participations, unlisted

Other holdings, 31/12/2017	Corp. ID no.	Domicile	Capital, %	Votes, %	Cost
FIVE LARGEST HOLDINGS IN OTHER SHARES AND PARTICIPATIONS IN SWEDISH UNLISTED COMPANIES¹					
Areim Investment 3 — 5 AB	559111-1165	Stockholm	50	9	700
LSTH Svenska Handelsfastigheter AB	559009-2325	Stockholm	13	2	210
iZettle pref E	556806-0734	Stockholm	-	-	196
Areim Fastigheter 3 AB	559035-9161	Stockholm	4	2	175
HealthCap Annex Fund I-II KB	556624-0783	Stockholm	20	20	174
FIVE LARGEST HOLDINGS IN OTHER SHARES AND PARTICIPATIONS IN FOREIGN ASSOCIATED COMPANIES¹					
EQT Infrastructure II (No.1) Feeder L.P.		Netherlands	3	-	364
EQT V (No. 1) L.P.		Guernsey	2	-	232
Private Equity Multi-Strategy (AP) Offshore L.P.		Cayman Islands	95	-	199
Keyhaven Growth Partners L.P.		UK	29	-	159
Keyhaven Capital Partners III L.P.		UK	8	-	153

¹ Refers to AP4's holdings in limited partnerships and other similar structures in which AP4 does not have significant influence.

A complete specification of shareholdings is available at www.ap4.se.

Shares in associated companies, 31/12/2016	Corp. ID no.	Domicile	No. shares	Capital, %	Votes, %	Fair value	Capital	Profit
SHARES IN SWEDISH ASSOCIATED COMPANIES								
Vasakronan Holding AB	556650-4196	Stockholm	1,000,000	25	25	13,771	46,117	10,916
Rikshem Intressenter AB	556806-2466	Stockholm	250	50	50	7,260	13,451	2,481
TOTAL SHARES IN SWEDISH ASSOCIATED COMPANIES						21 031		
SHARES IN FOREIGN ASSOCIATED COMPANIES								
ASE Holdings S.à.r.l.		Luxembourg	1,609,214	38	38	307	Not disclosed	Not disclosed
ASE Holdings II S.à.r.l.		Luxembourg	182,066,506	45	45	380	Not disclosed	Not disclosed
ASE Holdings III S.à.r.l.		Luxembourg	0	35	35	0	Not disclosed	Not disclosed
TOTAL SHARES IN FOREIGN ASSOCIATED COMPANIES						687		

Other holdings, 31/12/2016	Corp. ID no.	Domicile	Capital, %	Votes, %	Cost
FIVE LARGEST HOLDINGS IN OTHER SHARES AND PARTICIPATIONS IN SWEDISH UNLISTED COMPANIES¹					
PCP Debenture IIB	556805-6310	Stockholm	48	-	434
Areim Investment 3-1 AB	559035-6035	Stockholm	17	4	182
Areim Property Holding 5 AB	556963-0261	Stockholm	33	6	140
HealthCap Annex Fund I-II KB	969690-2049	Stockholm	20	20	174
Alfvén & Didrikson AB B	556805-6559	Stockholm	31	18	84
FIVE LARGEST HOLDINGS IN OTHER SHARES AND PARTICIPATIONS IN FOREIGN ASSOCIATED COMPANIES¹					
EQT Mid-Market Credit SV S.A		Luxembourg	24	-	445
EQT V (No. 1) L.P.		Guernsey	2	-	274
EQT Infrastructure II (No.1) Feeder L.P.		Netherlands	3	-	255
Private Equity Multi-Strategy (AP) Offshore L.P.		Cayman Islands	95	-	211
Keyhaven Growth Partners L.P.		UK	29	-	159

¹ Refers to AP4's holdings in limited partnerships and other similar structures in which AP4 does not have significant influence.

A complete specification of shareholdings is available at www.ap4.se.

10 Bonds and other fixed income assets

	31/12/2017		31/12/2016	
	Fair value		Fair value	
BREAKDOWN BY ISSUER CATEGORY				
Swedish state	7,092		7,075	
Swedish mortgage institutions	26,480		22,356	
Other Swedish financial services companies	10,128		8,886	
Swedish non-financial companies	832		241	
Foreign governments	50,861		47,524	
Other foreign issuers	15,928		21,069	
TOTAL FIXED INCOME ASSETS	111,321		107,151	
BREAKDOWN BY TYPE OF INSTRUMENT				
Other bonds	110,475		104,524	
Subordinated loans	102		1,933	
Unlisted promissory note loans	0		42	
Unlisted shareholder loans	744		652	
TOTAL FIXED INCOME ASSETS	111,321		107,151	

The scope of securities on loan, as well as collateral received, is presented in Note 17.

11 Derivative instruments

	31/12/2017		31/12/2016	
	Fair value		Fair value	
	Positive	Negative	Positive	Negative
EQUITY-RELATED INSTRUMENTS				
Options held	123	77	-	-
Total equity-related instruments	123	77	0	0
Of which, cleared	123	77	-	-
INTEREST-RELATED INSTRUMENTS				
Swaps	184	76	174	96
Total interest-related instruments	184	76	174	96
Of which, cleared	-	-	-	-
CURRENCY-RELATED INSTRUMENTS				
Options	640	332	735	665
Forward contracts	2,307	1,780	1,703	2,920
Swaps	-	-	8	238
Total currency-related instruments	2,947	2,112	2,446	3,823
Of which, cleared	-	-	-	-
TOTAL DERIVATIVE INSTRUMENTS	3,254	2,265	2,620	3,919
Of which, cleared	123	77	-	-

For details about areas of use and risk management for derivative instruments see Note 20 Risks, on page 64.

Maturity analysis

Most the AP4's derivatives have terms of less than one year.

Only a few currency options, credit default swaps and currency forwards have longer terms, and of these 31 (57) contracts have a negative fair value. These are presented in the tables below.

Maturity analysis of derivative positions with negative fair value, with terms longer than 12 months, 2017

Maturity structure	> 1 yr	> 3 yrs	> 5 yrs	> 10 yrs
Term	< 3 yrs	< 5 yrs	< 10 yrs	
Issued currency options	-71	-53	-	-
Credit default swaps	-	-3	-74	-
Currency forwards	-140	-	-	-
TOTAL	-211	-56	-74	0

Maturity analysis of derivative positions with negative fair value, with terms longer than 12 months, 2016

Maturity structure	> 1 yr	> 3 yrs	> 5 yrs	> 10 yrs
Term	< 3 yrs	< 5 yrs	< 10 yrs	
Issued currency options	-367	-	-	-
Cross currency basis swaps	-13	-21	-	-
Credit default swaps	-24	-6	-65	-
Currency forwards	-10	-	-	-
TOTAL	-414	-27	-65	0

12 Other assets

	31/12/2017	31/12/2016
Outstanding receivables	2,685	219
Other assets	1	1
TOTAL OTHER ASSETS	2,686	220

13 Prepaid expenses and accrued income

	31/12/2017	31/12/2016
Accrued interest income	1,112	1,032
Accrued dividends and repayments	256	227
Other prepaid expenses and accrued income	7	8
TOTAL PREPAID EXPENSES AND ACCRUED INCOME	1,375	1,267

14 Other liabilities

	31/12/2017	31/12/2016
Trade accounts payable	13	5
Outstanding liabilities	4,134	239
Other liabilities	7	6
TOTAL OTHER LIABILITIES	4,154	250

15 Deferred income and accrued expenses

	31/12/2017	31/12/2016
Accrued interest expenses	560	337
Accrued personnel costs	12	10
Accrued external asset management fees	3	4
Other accrued expenses	6	4
TOTAL DEFERRED INCOME AND ACCRUED EXPENSES	581	355

16 Fund capital

	31/12/2017	31/12/2016
Fund capital, opening balance	333,920	310,015
NET PAYMENTS TO THE PENSION SYSTEM		
Paid-in pension contributions	66,850	64,174
Pension funds disbursed to the Swedish Pensions Agency	-73,999	-70,595
Transfer of pension rights to EG	-2	-1
Settlement of pension rights	2	1
Administration fees paid to the Swedish Pensions Agency	-226	-216
TOTAL NET PAYMENTS TO THE PENSION SYSTEM	-7,375	-6,637
PROFIT FOR THE YEAR	30,064	30,542
FUND CAPITAL, CLOSING BALANCE	356,609	333,920

17 Pledged assets, contingent liabilities and commitments

	31/12/2017	31/12/2016
OTHER PLEDGED ASSETS AND EQUIVALENT COLLATERAL		
Securities on loan against collateral received in the form of securities ¹	24,680	25,072
Collateral pledged for exchange-cleared derivative contracts	1,522	1,136
Pledged assets pertaining to OTC derivative contracts ²	1,474	2,994
COMMITMENTS		
Investment commitments to future payments for alternative and strategic investments	9,491	9,962
Subscription commitments, see Note 18	9,500	9,500

¹ Collateral received for loaned securities amounts to SEK 25,592 million (25,877).

² Collateral received for OTC derivative contracts amounted to SEK 255 million (208).

18 Related parties

The purpose of this note is to disclose how AP4's earnings and financial position have been affected by transactions and outstanding balances, including commitments, with related parties in accordance with the definitions in IAS 24. All associated companies are considered to be related parties to AP4, see also Note 9.

	31/12/2017	31/12/2016
VASAKRONAN HOLDING AB		
Interest income	9	147
Rental costs ¹	3	11
Shareholder contributions during the year	-	3,000
Commitments ²	4,500	4,500
RIKSHEM INTRESSETER AB		
Interest income	10	9
Shareholder contributions during the year	-	586
Commitments ²	5,000	5,000
ASE HOLDINGS S.Å.R.L.		
Interest income	26	28
Shareholder loans	222	225
ASE HOLDINGS II S.Å.R.L.		
Interest income	28	26
Shareholder contributions during the year	33	34
Shareholder loans	357	312
ASE HOLDINGS III S.Å.R.L.		
Ränteintäkter	3	-
Shareholder contributions during the year	57	-
Shareholder loans	57	-

¹ Through 31 March 2017 AP4 leased its premises from Vasakronan AB at market terms.

² At the request of Vasakronan and Rikshem, AP4 has committed to buying commercial paper in the respective companies up a value reported above.

For salaries and remuneration for board members and senior executives, see Note 6.

19 Financial instruments, price and valuation hierarchy

Fair value, SEK m	31/12/17 Level 1	31/12/17 Level 2	31/12/17 Level 3	31/12/17 Total
FINANCIAL ASSETS				
Shares and participations, listed	168,760	37,578	3,254	209,592
Shares and participations, unlisted	-	-	29,914	29,914
Bonds and other fixed income securities	109,809	131	1,382	111,321
Derivative instruments	123	3,131	-	3,254
Total financial assets	278,692	40,839	34,549	354,080
FINANCIAL LIABILITIES				
Derivative instruments	-77	-2,187	-	-2,265
Total financial liabilities	-77	-2,187	-	-2,265
NET FINANCIAL ASSETS AND LIABILITIES	278,614	38,652	34,549	351,815

Fair value, SEK m	31/12/16 Level 1	31/12/16 Level 2	31/12/16 Level 3	31/12/16 Total
FINANCIAL ASSETS				
Shares and participations, listed	157,097	37,819	2,959	197,875
Shares and participations, unlisted	-	-	26,254	26,254
Bonds and other fixed income securities	105,921	385	845	107,151
Derivative instruments	-	2,620	-	2,620
Total financial assets	263,018	40,824	30,058	333,901
FINANCIAL LIABILITIES				
Derivative instruments	-	-3,919	-	-3,919
Total financial liabilities	-	-3,919	-	-3,919
NET FINANCIAL ASSETS AND LIABILITIES	263,018	36,906	30,058	329,982

Changes in Level 3

Changes in Level 3	Shares and participations, unlisted	Shares and participations, listed	Bonds and other fixed income investments
Opening balance, 1/1/2017	26,254	2,959	845
Realised and unrealised gains (+) or losses (-) in the income statement ¹	2,693	261	-41
Purchases	2,042	925	1,794
Sales	-1,076	-891	-1,216
CLOSING BALANCE, 31/12/2017	29,914	3,254	1,382
¹ Of which, unrealised gains	2,456	193	-41

Changes in Level 3	Shares and participations, unlisted	Shares and participations, listed	Bonds and other fixed income investments
Opening balance, 1/1/2016	19,822	2,377	3,892
Realised and unrealised gains (+) or losses (-) in the income statement ¹	3,209	94	-137
Purchases	4,006	960	205
Sales	-782	-472	-3,115
CLOSING BALANCE, 31/12/2016	26,254	2,959	845
¹ Of which, unrealised gains	2,632	2	-137

Level 1 Instruments with publicly quoted prices

Financial instruments traded in an active market. A market is considered to be active if it has quoted prices that are regularly updated more frequently than once a week and if the prices used are unadjusted for settled trades in the market. More than 80% of AP4's investments are classified in this level.

Level 2 Valuation methods based on observable market data

Financial instruments traded in a market that is not considered to be active, but where there are quoted prices that are unadjusted for trades, or observable input data that is updated regularly for indirect valuation using generally accepted models. At AP4 this category mainly includes market-quoted equity funds that are not considered to be active but where there is observable input data that is regularly updated for indirect valuation as well as OTC derivatives such as forward exchange contracts and interest rate swaps, but also fixed income instruments and funds containing interest-related instruments with low liquidity.

OTC derivatives are valued using discount curves that are indirectly based on regularly updated observable input data that is interpolated or extrapolated to calculate non-observable interest rates. Input data for these interest rates that is used to discount the future cash flows of the instrument for valuation is updated regularly and is observable, though this does not apply for the interest rates. These instruments are therefore classified as Level 2.

Level 3 Valuation techniques based on non-observable market data

Financial instruments that are valued using a significant amount of non-observable data or that cannot otherwise be classified as Level 1 or Level 2. This includes unlisted shares and shareholder loans in directly held real estate companies and unlisted shares in private equity firms. For private equity firms, the IPEV's principles are used as the main framework and include several valuation methods such as valuation based on actual transactions, multiples valuations, calculations of net asset value and discounted cash flows.

For holdings in directly owned real estate companies, the principles of IPD Svenskt Fastighetsindex are used as a framework, with two basic methods: the local market price method and the indirect return method (NPV approach). With the local market price method, the property holdings are compared with similar properties sold on the open market, while the indirect return method involves the use of discounted forecast future cash flows.

Sensitivity analysis

According to IFRS a sensitivity analysis shall be presented using an alternative valuation for Level 3 assets. In terms of valuation methodology, an alternative valuation of these assets is associated with major difficulties. Generally speaking, for unlisted real estate the yield requirement is of crucial importance, but assumptions about factors such as vacancies, operating costs, market and profit growth are also of great importance. For private equity firms, profit growth and the stock exchange's P/E multiple valuations are important. Level 3 valuations usually include a delay, which in a positive-trending market entail a conservative valuation.

A sensitivity analysis of Vasakronan, AP4's largest real estate holding, with a fair value of shares and participations of SEK 15.2 billion, i.e., just over 50% of unlisted shares in Level 3, has been performed by the real estate company. According to this analysis a change in required yield by +/- 0.25 percentage points would change the value of the shareholding in Vasakronan by approximately SEK -6.5/+7.3 billion.

For valuation of AP4's investments in private equity firms reported in unlisted shares, corresponding to SEK 2.9 billion, significant assumptions are made about valuation multiples and future cash flows. A changed assumption for the EV/EBITDA multiple by +/- 5% would result in a change in the valuation of these investments by SEK -/+ 363 million.

Valuation of AP4's high-yield fixed income assets reported in listed shares, corresponding to SEK 3.3 billion, is based substantially on discount rates for interest income and repayment of loans. A change in the discount rate of +/- 1 percentage point for all maturities would result in a change in value by SEK -/+ 66 million.

20 Risks

For a more detailed description of AP4's risk management, see the heading Risk management on page 77.

Business risks

Following is a description of AP4's principal risks, which consist of financial and operational risks.

Operational risk

By operational risk is meant the "risk of loss resulting from inadequate or failed processes, human error, defective systems or external events". The definition includes legal risk. Examples of operational risks include conscious or unconscious mismanagement, which can be caused by substandard routines or instructions, inadequate systems, insufficient control and audit, and by criminal actions or external events.

The overall goal in managing operational risks is to achieve and maintain a good control culture and to reduce significant operational risks within the Fund.

Operational risks at AP4 are to be managed through an established Fund-wide process and methodology. This process includes process mapping, identification and valuation of risks, and shall be conducted for all identified processes. Key controls shall be in place for all material risks, which as far as possible reduces the likelihood of risks materialising or mitigates the consequences when undesirable events occur despite all. In the valuation of risks, existing key controls shall quality-assured to ensure they have the desired functionality and are effective.

As part of the operational risk management process it is especially important to evaluate change processes and their effects on the business. Operational risks are evaluated specifically in connection with the implementation of new products, system changes and organisational changes.

To minimise operational risks, a clear division of responsibilities and authorities shall be documented in written rules and instructions. Applicable processes and procedures shall ensure good internal control and be documented in relevant instructions.

In the day-to-day activities all managers and employees shall maintain an awareness of risks in the business and their key controls, and act in such a way to ensure that the operations, assets or trust in the Fund among parties in the external operating environment are not jeopardised. Further, all units are responsible for ensuring that the daily operations meet the requirements for good internal control and allocate sufficient resources for this.

The operations, with the process owner as the responsible party, shall identify, assess and manage the risks in their respective areas of operation. IT & Risk is responsible for supporting and coordinating the management of operational risks in the entire Fund. This responsibility includes developing and providing expert and methodology support and following up, evaluating and developing the risk management process. In addition, IT & Risk is responsible for conducting a follow up at least once of year to ensure compliance with the joint risk management methodology for operational risks for all identified processes in the Fund.

The same applies for all identified material change processes,

such as for the implementation of new products, system changes and organisational changes.

AP4's Legal Affairs unit is responsible for legal risk aspects of contracts and similar.

Financial risks

Financial risks, consisting mainly of market, credit and liquidity risks, are monitored and controlled by the independent IT & Risk unit, which reports directly to the CEO and the Board of Directors.

The goal of asset management is to only take positions that are expected to generate favourable returns within established risk mandates. Therefore, the main risks that AP4 exposes itself to should consist of transparent financial risks, and in such case predominantly market risks where there are good opportunities to forecast risk premiums.

Market risks

Market risk is the risk that the value of an instrument will be negatively affected by variations in share prices, exchange rates or market interest rates. Since AP4's holdings consists mainly of listed instruments with daily pricing in liquid markets, there are good opportunities to regularly measure and report on market risks through both prognosticated and realised risk levels.

AP4's goal is to hold a high proportion of listed equities and fixed income instruments.

Share price risk

Share price risk refers to the expected variation in the market value of shares. Share price risk is managed through diversification across regions, countries and sectors.

Interest rate risk

Only AP4's fixed income assets are included in the measurement of interest rate risk attributable to expected variations in the market value of the Fund's fixed income assets caused by nominal interest rate movements in bond markets. AP4 manages interest rate risk through diversification across regions and yield curves, and by limiting differences in duration between the tactical and strategic management.

Currency risk

Currency risk refers to expected variations in exchange rates for assets denominated in foreign currencies. Currency risk arises in connection with investments that are listed in foreign currencies. The Swedish National Pension Insurance Funds Act limits the total currency exposure in the Fund to a maximum of 40 percentage points. AP4's investment policy determines the ultimate currency exposure for each major currency in the normal portfolio.

Risk in investments

One way of calculating financial risk is to use the Value at Risk (VaR) metric. Value at Risk is defined as the maximum loss that can arise with a given probability during a given period of time. In the table below an analytical factor model is used for a 10-day period of time and 95% confidence level.

20 Cont. Risks

31/12/2017	VaR, ex-ante, holding period 10 days	Contribution volatility % 12-month portfolio	VaR, ex-ante, holding period 1 day ²
Equities	5,949	6.13	989
Fixed income instruments	-103	-0.11	8
Currency	221	0.23	281
Total, Normal portfolio	6,067	6.25	1,278
Strategic management ¹	394	0.41	-12
Tactical management	686	0.71	-10
TOTAL INVESTMENT ASSETS	7,240	7.45	1,255
of which, passive management	93	0.10	

31/12/2016	VaR, ex-ante, holding period 10 days	Contribution volatility % 12-month portfolio	VaR, ex-ante, holding period 1 day ²
Equities	7,225	8.00	2,152
Fixed income instruments	-151	-0.17	-66
Currency	-22	-0.02	71
Total, Normal portfolio	7,053	7.81	2,157
Strategic management ¹	486	0.54	-80
Tactical management	154	0.17	-6
TOTAL INVESTMENT ASSETS	7,685	8.51	2,071
of which, passive management	-8	-0.01	

¹ Some of the Fund's strategic assets lack market quotations of asset prices with good periodicity or are also missing underlying holdings of an index. This makes it difficult to forecast the risks for these assets in a satisfactory manner in the Fund's risk system, Barra. The Fund has therefore chosen to use alternative listed securities as approximations for these holdings. Approximations have been used for a total of 20.7% of the strategic assets. Of this total, CO2 mandates account for 10.0%, and the corresponding regional MSCI index has used as the proxy. In addition, real estate holdings account for 7.8%, with listed Swedish real estate stocks used as the proxy.

² To enable comparisons with AP1, AP2 and AP3, the Fund has also estimated VaR based on a one-day holding period, a 95% confidence level, and a data length of one year in which the observations are given equal weight. In this context a simulation method with historical return distribution has been used for the calculation.

The risk measure Value at Risk (VaR) is used to calculate financial risks. Value at Risk is defined as the maximum loss that can arise with a given probability over a given period of time. The table above uses a 10-day period and 95% confidence level, unless otherwise indicated.

Currency exposure

31/12/2017	USD	EUR	GBP	JPY	Other	Total
Shares and participations	94,136	19,121	8,390	11,447	10,952	144,045
Bonds and other fixed income assets	42,278	19,294	7,806	0	0	69,378
Derivative instruments, excl. currency derivatives	-68	224	0	0	0	155
Other receivables and liabilities, net	3,519	-688	196	76	422	3,525
Currency derivatives	-89,198	-36,846	-12,652	-6,562	-6,281	-151,540
CURRENCY EXPOSURE, NET	50,666	1,104	3,739	4,960	5,093	65,563

31/12/2016	USD	EUR	GBP	JPY	Other	Total
Shares and participations	85,809	18,042	8,076	10,330	10,717	132,974
Bonds and other fixed income assets	44,680	16,287	9,978	0	0	70,945
Derivative instruments, excl. currency derivatives	-825	-3,700	0	0	0	-4,525
Other receivables and liabilities, net	1,180	481	421	90	393	2,566
Currency derivatives	-74,523	-20,652	-8,586	-3,338	-5,007	-112,106
CURRENCY EXPOSURE, NET	56,321	10,458	9,889	7,082	6,104	89,854

AP4 hedges its entire holding of foreign fixed income assets as well as parts of its foreign shareholdings using currency derivatives. AP4's currency exposure at year-end was 18.4% (26.9%). The Fund's currency exposure is shown in the table above.

20 Cont. Risks

Credit risk

Credit risk refers to the risk that an issuer or counterparty cannot meet its payment obligations. Credit exposure refers to the value that is exposed to credit risk through agreements with counterparties or issuers. Credit exposure thus includes both issuer and counterparty exposures. Total credit risk is limited by the selection of the interest rate index in the normal portfolio and limits per

rating category. Credit risk per pool of issuers or issuer is restricted by limits which include both issuer and counterparty risk.

The CEO approves all counterparties with which the Fund can do business (in both standard and non-standard instruments). Further, when trading in OTC derivatives, ISDA and CSA agreements must exist for all large counterparties.

Rating classes, ³ 31/12/2017	Non-standard derivatives			Residual risk
	Bonds, ¹ exposure	Fair value ¹	Collateral/security	
AAA	90,720			
AA	14,046	59	227	286
A	3,656	395	220	614
BBB	1,775	10	134	145
Lack rating ²	1,995			
TOTAL FINANCIAL ASSETS AND LIABILITIES	112,192	464	581	1,045

Rating classes, ³ 31/12/2016	Non-standard derivatives			Residual risk
	Bonds, ¹ exposure	Fair value ¹	Collateral/security	
AAA	81,707			
AA	16,513	-110	307	196
A	6,096	-1,387	1,576	189
BBB	2,934	-107	110	4
Lack rating ²	747			
TOTAL FINANCIAL ASSETS AND LIABILITIES	107,997	-1,604	1,993	389

¹ Fair value, including accrued interest.

² Pertains to subordinated loans, bonds and shareholder loans in Alternative investments and Real estate.

³ The credit ratings presented here refer to an internal standard. For 2017 this standard is based on the rating assigned by the chosen rating agency (Moody's Analytics UK Ltd).

Management of derivatives

AP4 uses derivatives in most management mandates. Derivatives have several areas of use and purposes, where the most important are outlined below:

- Hedging AP4's foreign investments, where derivatives are the only alternative
- Making index management more efficient, where derivatives are used to minimise transaction costs and simplify administration
- Making active management more efficient, where derivatives are used to minimise transaction costs and simplify administration as well as to enable positions to be taken that cannot be created using other instruments (short positions, volatility positions, and more)
- Regulating the strategic portfolio's risk with the help of strategic derivative positions

The use of derivatives is limited both in terms of the nominal

underlying values and market risk. All derivative positions and associated risks are subject to daily position and risk monitoring.

The CEO approves all counterparties with which AP4 may do business regarding both standard and non-standard instruments.

Furthermore, when trading in OTC derivatives, ISDA (International Swaps and Derivatives Association) and CSA (Credit Support Annex) agreements must exist with all large counterparties. ISDA agreements refer to a standard agreements for regulating derivatives trading between two counterparties. CSA agreements refer to an annex to an ISDA agreement.

CSA agreements regulate how collateral is to be pledged as outstanding liabilities in the form of liquid funds or securities.

20 Cont. Risks

Liquidity risk

Liquidity risk includes liquidity risk related to cash flows and liquidity risk in financial instruments.

Liquidity risk in a financial instrument consists of the risk that the instrument cannot be sold or can only be sold at a significantly lower price than the market quoted price.

A large share of AP4's securities are lendable on short notice. However, potential losses on forward contracts and equity index futures may be of significant amounts, and daily forecasts of liquidity in SEK and currencies are to be calculated.

AP4's liquidity risk in financial instruments is limited by the Fund's investment universe and choice of reference indices for fixed income securities and listed equities. Illiquid financial instruments consist primarily of assets in unlisted companies and real estate. OTC derivatives and credit instruments may also become illiquid and/or show significant differences between the bid and ask prices from time to time.

Liquidity risk can also be high if large net payments are needed from the liabilities side, since the Fund has a payment obligation

to the Swedish Pensions Agency. This makes it necessary to keep a large share of liquid assets. At present AP4 makes monthly payments to the Swedish Pensions Agency that are relatively small in relation to existing capital.

Further, the National Pension Funds Act limits liquidity risk, as it stipulates that a minimum of 30% of AP4's total market value must be invested in debt instruments with low credit and liquidity risk.

The Board's rules limit liquidity risk through specific guidelines for investments in interest-bearing assets and through careful monitoring of cash balances. AP4 invests a large share of the portfolio in listed equities and government bonds with good liquidity. Overall, liquidity risk in AP4 is considered to be low.

The table below provides a summary of AP4's liquidity risk according to the maturity structure. Bonds and fixed income instruments are stated at fair value, including accrued interest.

Maturity structure, 31/12/2017						
Term	< 1 yr	1 < 3 yrs	3 < 5 yrs	5 < 10 yrs	> 10 yrs	Total
Nominal government	3,029	8,051	16,517	17,656	12,668	57,920
Nominal corporate	4,689	19,917	15,526	12,089	2,050	54,271
TOTAL	7,718	27,968	32,043	29,745	14,718	112,192

Maturity structure, 31/12/2016						
Term	< 1 yr	1 < 3 yrs	3 < 5 yrs	5 < 10 yrs	> 10 yrs	Total
Nominal government	1,415	7,113	16,555	19,074	10,643	54,800
Nominal corporate	2,753	22,421	17,851	8,068	2,103	53,196
TOTAL	4,168	29,534	34,406	27,142	12,746	107,997

All liabilities have terms of less than one year except for a few currency options, forward exchange contracts and credit derivatives (credit default swaps), see Note 11. However, the combined market value of these contracts is limited, and they have therefore been omitted from the table above.

21 Financial assets and liabilities that are netted on the balance sheet or subject to netting agreements

31/12/2017	Gross amount	Netted amount on balance sheet	Net amount on balance sheet	Amounts not netted on the balance sheet				Total on balance sheet
				Offsetting of financial instruments under agreements	Collateral received	Net amount after offsetting	Other ¹	
ASSETS								
Derivative instruments	3,131	-	3,131	1,958	249	924	123	3,254
Unliquidated receivables	13,706	13,702	4	-	-	4	2,681	2,685
TOTAL	16,837	13,702	3,135	1,958	249	928	2,804	5,939
LIABILITIES								
Derivative instruments	2,188	-	2,188	1,958	222	8	77	2,265
Unliquidated receivables	13,708	13,702	6	-	-	6	4,128	4,134
TOTAL	15,896	13,702	2,194	1,958	222	14	4,205	6,399

31/12/2016	Gross amount	Netted amount on balance sheet	Net amount on balance sheet	Amounts not netted on the balance sheet				Total on balance sheet
				Offsetting of financial instruments under agreements	Collateral received	Net amount after offsetting	Other ¹	
ASSETS								
Derivative instruments	2,620	-	2,620	2,314	188	118	-	2,620
Unliquidated receivables	1,401	1,400	1	-	-	1	218	219
TOTAL	4,021	1,400	2,621	2,314	188	119	218	2,839
LIABILITIES								
Derivative instruments	3,919	-	3,919	2,314	1,603	2	-	3,919
Unliquidated receivables	1,400	1,400	-	-	-	0	239	239
TOTAL	5,319	1,400	3,919	2,314	1,603	2	239	4,158

¹ Other instruments on the balance sheet not subject to agreements that allow offsetting.

The table above shows financial assets and liabilities that are presented net on the balance sheet or that have rights associated with legally binding master agreements for offsetting or similar agreements. Financial assets and liabilities are recognised net on the balance sheet when AP4 has a legal right to net under normal business conditions and in the event of insolvency, and if there is an intention to settle net or sell the asset and settle the liability simultaneously. Financial assets and liabilities that are subject to legally binding master agreements on offsetting or similar agreements that are not presented net on the balance sheet are arrangements that usually come into force in the event of insolvency, but not under normal business conditions or for arrangements in which AP4 does not have the intention to liquidate positions simultaneously.

Board of Directors' signatures

Stockholm, 20 February 2018

Sarah McPhee

Chairman of the Board

Lars Åberg

Vice Chairman

Sven Hegelund

Stefan Lundbergh

Erica Sjölander

Katrin Stjernfeldt-Jammeh

Maj-Charlotte Wallin

Ingrid Werner

Göran Zettergren

Niklas Ekvall

CEO

Our audit report was submitted on 20 February 2018

Helena Kaiser de Carolis

Authorised Public Accountant,
Appointed by the Swedish government

Peter Nilsson

Authorised Public Accountant,
Appointed by the Swedish government

Auditor's Report

Report on the audit of the annual accounts

Opinion

We have audited the annual accounts of Fourth AP Fund for 2017. The Fund's annual accounts are included in the printed version of this document on pages 46-69.

In our opinion, the annual accounts have been prepared in accordance with the Swedish National Pension Funds Act (2000:192) and present fairly, in all material respects, the financial position of the Fourth AP Fund as at 31 December 2017 and of its financial performance for the year then ending according to the Swedish National Pension Funds Act.

The statutory administration report is consistent with the other parts of the annual accounts.

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 these standards are described in more detail in the section Auditor's responsibilities below. We are independent in relation to AP4 according to generally accepted auditing standards in Sweden and have fulfilled, in general, within the meaning of professional ethical requirements according to these standards.

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

Other information than the annual accounts

This document includes other information than the financial statements. The other information comprises the pages 1-45 and 72-81. The Board of Directors and the Managing Director are responsible for the other information.

Our opinion on the annual accounts 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 annual accounts, our responsibility is to read the information identified above and consider whether the information is materially inconsistent with the annual accounts. 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 Managing Director

It is the Board of Directors and Managing Director who are responsible for the preparation and fair presentation of the annual accounts in accordance with the Law on Pension Funds. The board

of Directors and Managing Director are also responsible for the internal control they deem necessary to enable the preparation of annual accounts that are free from material misstatement, whether due to fraud or error.

In preparing the annual accounts, the Board of Directors and Managing Director are required to assess the Fund's capacity to continue its operations. They are also to provide disclosures, as appropriate, of the circumstances regarding such assessments and as regards the application of the going concern basis of accounting, provided the Board of Directors and Managing Director do not intend to liquidate the Fund or cease operations, or has no realistic alternative but to do so.

Auditor's responsibilities

Our responsibility is to obtain reasonable assurance as to whether the annual accounts and consolidated accounts 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 does not comprise a guarantee that an audit conducted in accordance with ISA and generally accepted auditing standards in Sweden will always identify material misstatements should they exist. Misstatements can arise from fraud or error and are considered to be material if, individually or taken together, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual accounts. As a part of the audit in accordance with ISA, we undertake professional judgment and maintain professional scepticism throughout the entire audit.

As a part of the audit in accordance with ISA, we undertake professional judgment and maintain professional scepticism throughout the entire audit. In addition, we execute the following activities:

- We identify and assess the risks of material misstatement in the annual accounts, whether due to fraud or error, design and execute audit procedures based on, amongst other things, these risks, and obtain audit evidence which is sufficient and appropriate to provide a basis for our opinion. The risk of not identifying a material misstatement resulting from fraud is higher than one resulting from error, as fraud can include collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.
- We obtain understanding of the internal control of the company relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal controls.
- We evaluate the appropriateness of the accounting principles applied and the reasonability of the accounting estimates and related disclosures made by the Board of Directors and Managing Director.
- We reach a conclusion on the appropriateness of the Board of Directors' and Managing Director's application of the going concern basis of accounting in the preparation of the annual

accounts. We are also to reach a conclusion, based on the audit evidence obtained, whether any material uncertainty exists related to such events or circumstances which can result in significant doubt as regards 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 annual accounts, or if such disclosures are inadequate, we are required to modify our opinion on the annual accounts. Our conclusions are based on the audit evidence obtained up to the date of our Auditor's Report. However, future events or circumstances may cause the Fund to cease to continue as a going concern.

- We evaluate the overall presentation, structure and content of the annual accounts and consolidated accounts, including the disclosures, and whether the financial reports represent the underlying transactions and events in a manner providing a true and fair presentation.

We are required to inform the Board of Director's regarding, amongst other matters, the planned scope of the audit and its focus and time schedule, as well as regards any significant observations made during the audit, including potential significant deficiencies in the internal control which we identify during our audit.

Report on other legal and regulatory requirements

Opinion

In addition to our audit of the annual accounts, we have also audited the inventory of the assets managed by AP4. We have also audited to determine if there are any criticisms, in general, as regards the Board of Director's and Managing Director's management of AP4 for 2017.

The audit has shown no reason to criticise the inventory of the assets or, in general, the administration.

Basis for opinion

We conducted our audit in accordance with 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 believe that the audit evidence we have obtained is sufficient and appropriate as a basis for our opinion.

Responsibilities of the Board of Directors and Managing Director

It is the Board of Directors who has the responsibility for the accounts and for the administration of the Fund's assets according to the Law on Pension Funds.

The Board of Directors is responsible for the organisation of AP4 and for the administration of the Fund's activities of AP4. This includes, amongst other things, the on-going assessment of the AP4 Fund's financial situation and ensuring that the organisation of AP4 is designed in such a manner that the accounts, funds management and the Fund's activities are, in general, subject to satisfactory controls. The Managing Director is responsible for the day-to-day administration according to the Board of Director's guidelines and instructions and for, amongst other things, the implementation of measures necessary to ensure that the Fund's accounting is executed in compliance with the applicable legislation and that the funds of Ap4 are managed in a satisfactory manner.

Auditor's responsibilities

Our responsibility regarding the audit of the administration and, thereby, our opinion on discharge from liability, is to evaluate audit evidence in order to, with a reasonable degree of assurance on the basis of reasonable assurance, if there is any criticism of the Board of Directors' and Managing Directors' administration of the AP4 for financial year 2017.

Reasonable assurance is a high level of assurance but does not comprise a guarantee that an audit executed in accordance with generally accepted auditing standards in Sweden will always identify actions or negligence which can result in criticism.

As a part of an audit according to generally accepted auditing practice in Sweden, we exercise professional judgment and maintain a professional scepticism through the entire audit. The audit of the administration is based primarily on the audit of the accounts. Any additional audit procedures selected to be executed are based on our professional judgment with the starting point being the risks in the operations and the determined level of materiality. This implies that we focus the audit on such on such measures, areas and circumstances that are significant to the operations, and where non-compliance in such contexts would be of particular importance to AP4's situation. We review and test decisions taken, decision-making documentation, measures taken and other circumstances relevant to our opinion on the administration.

Stockholm, 20 February 2018

Helena Kaiser de Carolis

Authorised Public Accountant

Appointed by the Swedish Government

Peter Nilsson

Authorised Public Accountant

Appointed by the Swedish Government

Board of Directors

AP4's board of directors consists of nine board members. All of the board members are appointed by the government. Of the Board's members, two are appointed based on a recommendation from the employees' unions and two are appointed based on a recommendation from the employers' organisations. The government appoints the Chairman from among the other board members.



Sarah McPhee

Chair of the Board since 2016
Born 1954

Other assignments

Chair: the Centre for Business and Policy Studies (SNS), The Royal Swedish Academy of Sciences Investment Committee, Houdini AB
Director: Klarna AB, Axel Johnson Inc., Bure Equity AB



Lars Åberg

Vice Chair since 2017
Born 1953
B.Sc. Econ.

Other assignments

Director: Trygg-Stiftelsen, Gamla Livförsäkringsaktiebolaget SEB TryggLiv



Sven Hegelund

Director since 2012
Born 1947
Master in Political Science

Other assignments

Director: Nordiska Investeringsbanken (NIB)



Stefan Lundbergh

Director since 2011.
Born 1968.
Ph.D.

Other assignments

Director Cardano Insights



Erica Sjölander

Director since 2012
Born 1971

Other assignments

Cabinet Secretary, Swedish Unions within Industry



Katrin Stjernfeldt Jammeh

Director since 2017
Born 1974

Other assignments

Municipal board chair, City of Malmö
Chair: Malmö Stadshus AB
Director: Malmö Municipal Council, SKL, KPA Liv and Social Democrat Party Board



Maj-Charlotte Wallin

Director since 2014
Born 1953

Other assignments

Director: Swedish Heart-Lung Foundation, Specialfastigheter AB



Ingrid Werner

Director since 2017
Born 1961

Other assignments

Martin and Andrew Murrer Professor of Finance
Director: FINRA Economic Advisory Committee, Swedish House of Finance (ShoF), Scientific Advisory Board, Mistra Financial Systems (MFS) Board, Scientific Board for Danish Finance Institute



Göran Zettergren

Director since 2015
Born 1958
Ec. Lic.

Other assignments

Senior Economist, Confederation of Professional Employees (TCO)

Executive Management



Niklas Ekvall

CEO

Employed since 2016

Born 1963

Ph.D. Financial Economics, M.Sc. Industrial Engineering

Previous positions include Nordea, Carnegie, AP3, Handelsbanken and Handelshögskolan.

Director: Vasakronan AB, Hans Dahlborgs Stiftelse för Bank- och Finansforskning, and The Royal Swedish Academy of Sciences Investment Committee.

AP4's Executive Management is made up of eight persons.



Marcus Blomberg

Head of Strategic Allocation & Quantitative Analysis

Employed since 2017

Born 1974

M.Sc. Eng., M.Sc. Econ., CFA

Previous positions include AMF, LF and Alfred Berg.



Per Colleen

Head of Fundamental Equities

Employed since 2013

Born 1969

B.Sc. Econ.

Previous positions include SEB, DnB, MGA and AP3.



Tobias Fransson

Head of Strategy & Sustainability

Employed since 2003

Born 1968

M.Sc. Econ.

Previous positions include ABB, SEB and Capto Financial Consulting.



Bengt Lindefeldt

Head of Global Macro management

Employed since 2008

Born 1962

M.Sc. Eng.

Previous positions include Investor, Carnegie, Nordea and AFA Insurance.



Susan Lindkvist

Head of Administration

Employed since 2013

Born 1960

B.Sc. Econ.

Previous positions include Avanza, Erik Penser and RAM Rational Asset Management.



Ulrika Malmberg Livijn

General Counsel

Employed since 2009

Born 1968

LL.B.

Previous positions include business law firm Lindahl, law firm Setterwalls and Skandia Insurance Company Ltd.



Nicklas Wikström

Head of IT & Risk

Employed since 2008

Born 1968

M.Sc. in Accounting and Financing, CEFA, AFA

Previous positions include AFA Insurance.

Fund governance report

The fund governance report describes parts of the work conducted by the Board of Directors and AP4 during the year. The report complies with applicable parts of the Swedish Corporate Governance Code (“the Code”), which provides guidance for generally accepted practice for listed Swedish companies. However, AP4 is a governance authority, and the differences between public law and company law are substantial. The fund governance report is therefore limited to the parts of the Code that can be regarded as relevant for AP4. The fund governance report has not been reviewed by AP4’s external auditors.

Governance of AP4 — an authority governed by law

AP4 is a government authority whose operations are regulated by the National Pension Funds (the AP Funds) Act (Lagen (2000:192) om allmänna pensionfonder (AP-fonder)). The purport of this law is that AP4’s capital may only be used by the state to finance income-related retirement pensions, unless the Swedish parliament decides otherwise.

In accordance with National Pension Funds Act, the AP Funds each have their own, independent boards of directors, which are responsible for the organisation and administration of the Funds’ capital. According to this Act, AP4’s board and operations may not be steered by government directives nor by business policies or economic policy interests.

AP4’s mission

AP4’s mission is to manage the Fund’s assets to achieve maximum long-term returns and thus provide the greatest possible benefit

for the pension system. The environment and ethics are to be taken into account without diminishing the goal for maximum returns. In its work on achieving this mission, AP4 shall independently formulate goals and strategies.

Investment rules

The investment rules for AP1, AP2, AP3 and AP4 are stipulated in the National Pension Funds Act.

- Investments may be made in all market-listed and tradable instruments on the capital market, except for those related to commodities.
- A minimum of 30% of assets must be invested in fixed income securities with low credit and liquidity risk.
- A maximum of 40% of assets may be exposed to currency risk.
- A maximum of 10% of assets may be exposed to an individual issuer or group of issuers with internal ties.
- The market value of AP4’s shares in listed Swedish companies may amount to a maximum of 2% of the respective companies’ total market capitalisation.
- A maximum of 10% of votes may be owned in an individual listed company (except for own real estate companies). A maximum of 30% in unlisted companies (private equity firms).
- A maximum of 5% of assets may be invested in unlisted securities. Unlisted securities may only be owned indirectly via funds or via private equity companies (except for shares in own real estate companies).
- Shares and participations may not be owned in real estate companies.
- A minimum of 10% of assets shall be invested by external asset managers.

Review and evaluation

The AP Funds are reviewed by external auditors. The government adopts the AP Funds' income statements and balance sheets yearly. Under assignment by the government the AP Funds' operations are also evaluated every year. This evaluation is presented in a written document that is submitted to the Riksdag.

Audit of operations

AP4's auditors are appointed by the Swedish government. The current assignment for 2017 is currently held by Peter Nilsson, from PwC AB. This assignment applies until AP4's income statement and balance sheet for 2017 has been adopted and also includes a specific assignment for PwC AB to coordinate the audits of the AP Funds.

The auditors issue an audit report on their review. The auditors report directly to the Board of Directors, in part via a written audit report and in part via an oral presentation. The auditors attend at least one board meeting per year. The auditors report yearly to the Ministry of Finance.

External and internal rules and regulations

AP1, AP2, AP3 and AP4 have jointly prepared accounting and valuation principles which aim to ensure that the AP Funds apply uniform accounting principles and that their annual reports are thereby comparable. The document is updated on a regular basis and is discussed yearly with the AP Funds' auditors.

Since 2012 the AP Funds have a joint policy for remuneration terms, employee benefits, entertainment and business travel that has been adopted by the respective AP Funds' boards. This joint, overarching policy is complemented by AP4's more detailed internal employee and ethics-related policies and guidelines.

Following are external and internal rules and regulations as well as documents that affect governance of the operations:

- The National Pension Funds (the AP Funds) Act (Lagen (2000:192) om allmänna pensionfonder (AP-fonder))
- Laws such as the Administrative Procedures Act, the Public Procurement Act, and the principle on public access to information
- Views from external auditors
- The government's evaluation and report to the Riksdag
- The AP Funds' joint policy, and accounting and valuation principles
- AP4's internal policies and rules
- AP4's ownership policy
- The Swedish Code of Corporate Governance

The Board's responsibility and duties

The Board of Directors is ultimately responsible for AP4's organisation and the administration of AP4's capital. The Board has delegated the responsibility for the day-to-day administration to the CEO.

The Board is also responsible for hiring and evaluating the CEO, taking positions on overarching strategic issues, ensuring that its decisions are executed, and checking and following up that the operations and its risks are managed in a suitable manner.

Important duties include adopting the following, among other things:

- Rules of Procedure for its work
- Policies, rules and guidelines for the operations, personnel (including principles for remuneration and terms of employment), financial and operational risks, and ethical guidelines for employees
- Long-term goals for the operations
- The CEO's instructions
- A yearly business plan for AP4

The Board's composition

AP4's board shall be made up of nine regular directors without deputies. The board members are appointed by the government. Of these, two are appointed based on a recommendation from the employer's organisation and two are appointed based on a recommendation from the employee unions. The government appoints the Chair and Vice Chair from among the other board members who were not nominated by the labour market parties.

During 2017 Jakob Grinbaum, Ing-Marie Gren and Heléne Fritzon left the board. Katrin Stjernfeldt Jammeh and Ingrid Werner were appointed as new directors, and Lars Åberg was appointed as Vice Chair of AP4's board.

The board members on 31 December 2017 were Sarah McPhee (Chair), Lars Åberg (Vice Chair), Sven Hegelund, Stefan Lundbergh, Erica Sjölander, Katrin Stjernfeldt Jammeh, Maj-Charlotte Wallin, Ingrid Werner and Göran Zettergren. Biographical information on AP4's directors is provided on page 72.

The Board appointments apply until AP4's balance sheet and income statement for 2017 have been adopted.

The Board's three committees

The Board has established three committees — the Remuneration, Risk, and Audit Committees — which conduct drafting work on various matters for the Board.

Remuneration Committee

The Remuneration Committee is tasked with conducting drafting work and advising the Board on remuneration matters concerning the CEO and senior executives. The committee also conducts drafting work on other matters concerning AP4's remuneration principles and other terms of employment for all employees.

The Remuneration Committee is composed of three board members: Göran Zettergren (committee chair), Sven Hegelund and Maj-Charlotte Wallin.

Risk Committee

The Risk Committee shall serve as a drafting, oversight and advisory body for the Board with respect to AP4's governance, monitoring, and reporting of financial risks in the operations.

The Risk Committee is composed of three board members: Stefan Lundbergh (committee chair), Sven Hegelund and Ingrid Werner.

Audit Committee

The Audit Committee is tasked with serving in a drafting, oversight and advisory role for the Board with respect to AP4's external financial reporting, accounting, external audit, monitoring of AP4's management of operational risks, and compliance.

AP4's external auditors attend the meeting at which the final audit is addressed.

The Audit Committee is composed of three board members: Maj-Charlotte Wallin (committee chair), Stefan Lundbergh and Erica Sjölander.

Directors' fees

Directors' fees are set by the government

The full-year fee is SEK 100,000 for the Chairman of the Board, SEK 75,000 for the Vice Chairman, and SEK 50,000 for each of the other directors. The directors' fees have been unchanged since 2000.

The government has also set a yearly budget of SEK 100,000 for committee assignments. The Board has decided to distribute the annual fee for committee work in the amount of SEK 11,100 per member, excluding the Chairman of the Board.

Board work in 2017

Seven meetings documented by minutes

During the 2017 financial year the Board held seven meetings at which minutes were recorded. As shown in the table below, directors' attendance continues to be high, by an average of 90%.

Attendance at board meetings included, in addition to the board members, the CEO, AP4 executives in a presenting role, and AP4's General Counsel, who also serves as company secretary.

Focus areas in 2017

In addition to its regular work areas, the focus of the Board's work in 2017 was mainly on decisions related to extensive development work during the year, including:

- An ALM analysis
- The asset management structure, including long-term targets, the portfolio structure, and investment philosophy
- The framework and policy for AP4's sustainability work
- In addition, the Board addressed the new proposal for the AP Funds' investments rules that were presented during the year by the Ministry of Finance

Evaluation of the Board's work

The Board's work is evaluated yearly. At the end of 2017 the Board conducted the annual evaluation of its work, in which all board members participated. The evaluation was conducted with the assistance of external consultants, after which the evaluation report served as documentation for a discussion within the Board on how its work can be further developed.

Board meetings in 2017

	Remuneration Committee	Risk Committee	Audit Committee	Attendance/total number of meetings	Fee received
Sarah McPhee, Chairman of the Board				7/7	100,000
Jakob Grinbaum, Vice Chairman through 5 October 2017				5/5	72,150
Ing-Marie Gren, director through 24 May 2017				2/2	25,500
Stefan Lundbergh, director ^{2 3}		X	X	7/7	72,200
Maj-Charlotte Wallin, director ^{1 3}	X		X	3/7	72,200
Heléne Fritzon, director through 3 August 2017				4/4	25,000
Göran Zettergren, director ¹	X			6/7	61,100
Sven Hegelund, director ^{1 2}	X	X		7/7	68,875
Erica Sjölander, director ³			X	7/7	61,100
Ingrid Werner, director as from 24 May 2017		X		5/5	27,775
Katrin Stjernfeldt Jammeh, director as from 5 October 2017				0/1	12,500
Lars Åberg, director as from 23 November 2017				0/0	

¹ Fee received includes fee for service on Remuneration Committee.

² Fee received includes fee for service on Risk Committee.

³ Fee received includes fee for service on Audit Committee.

Risk management at AP4

Well balanced active risk-taking based on set level of risk is a central component in AP4's successful asset management.

Risk management in three steps

To achieve its set return targets, AP4 must take well balanced risks, and adept risk management is necessary for successful asset management. It must be possible to foresee risks prior to an investment and to subsequently control them. Risk management can be broken down into three steps:

- 1 Risk governance
- 2 Continuous risk management
- 3 Monitoring and control

Step 1. Risk governance — framework for risk tolerance

The Board of Directors has overarching responsibility for AP4's operations and adopts an investment policy and risk management plan for AP4's operations every year. Together with the National Pension Funds (the AP Funds) Act (Lagen (2000:192) om allmänna pensionfonder (AP-fonder)), these governing documents provide the framework for AP4's risk tolerance.

To manage the various aspects of risk governance, the Board has established a Risk Committee and an Audit Committee with three board members each. The Risk Committee serves in an advisory, oversight and drafting role for the Board with respect to AP4's governance, monitoring and reporting of financial risks in the operations. The Audit Committee is tasked with overseeing the external financial reporting and the effectiveness of AP4's internal controls. Its duties include overseeing the work on monitoring management of operational risks and monitoring compliance.

AP4's risk and investment strategy has been formulated in accordance with the overall objective to generate the highest possible return over time and thereby contribute to the pension system's financial strength.

The investment policy describes, among other things, the focus of asset management through the reference portfolio that the Board has decided on, which takes its starting point from AP4's ALM (Asset Liability Management) process. The investment policy stipulates, among other things, AP4's long-term return targets, risk profile and risk mandates for asset management, which serve as a general framework for operations.

The risk management plan describes the division of responsibility and authority for the investment operations, the principal risks in the business and how these risks are to be controlled and followed up. The main risks are financial and operational risks.

A more detailed description of risks is provided in Note 20.

Step 2. Continuous risk management

AP4's daily risk management and control activities are decentralised to all operating aspects of the organisation and are conducted in accordance with the three lines of defence principle. This principle

distinguishes between the functions that own the risks (the first line of defence), functions for monitoring, control and compliance (the second line of defence), and functions for independent review (the third line of defence).

Three lines of defence

In the first line of defence, all pertinent units have a responsibility for risk management and control for every business transaction. This includes every administrative unit in the investment operations as well as business support functions, such as Back Office, Finance and Legal.

The second line of defence consists of parts of the IT & Risk unit (Performance Analysis and Risk Control), Compliance and Finance (pertaining to control of rules surrounding authorisation rights). The Compliance function, Performance Analysis and Risk Control are independent functions from the investment operations that report directly to the CEO and Board of Directors.

The Board decides whether and to what extent the third line of defence is engaged. Such a role is to be performed by an external accounting firm. In 2017 a procured external accounting firm was hired for such an internal audit assignment.

Financial and operational risks

In the continuing risks management, risks are broken down into financial and operational risks.

Financial risks consist mainly of market, credit and liquidity risks.

The CEO delegates the risk mandate received from the Board for financial risks to the various asset management units. The respective asset managers are responsible for risk management within their respective mandates. Risk management within a mandate is conducted through calculated risk-taking, which can have both positive and negative outcomes.

AP4's financial risks arise out of the Board's decision on the normal portfolio's composition. By setting risk mandates for the asset management, the scope for risk-taking in the day-to-day management is limited.

As documentation for AP4's continuing work on optimising risk-taking, risk forecasts are used for the respective asset management areas, instruments, risk factors, and so on. AP4 plans strategic risk-taking with the help of stress tests and various scenario analyses.

Operational risks at AP4 are to be managed through an established Fund-wide process and methodology. Key controls shall be in place for all significant operational risks, which as far as possible reduce the likelihood of a risk materialising or mitigate the consequences when undesirable events occur despite all. In the day-to-day activities all managers and employees shall maintain an awareness of risks in the business and their key controls, and act in such a way to ensure that the operations, assets, and the trust of the surrounding world are not jeopardised.

Step 3. Monitoring and control

The IT & Risk unit is responsible for developing the risk analysis and control process. IT & Risk provides methods for risk identification, risk quantification, risk analysis, and reporting of both financial and operational risks. IT & Risk is responsible for ensuring compliance with statutory investment rules, the investment policy, the requirements of the risk management plan and the CEO's decisions.

IT & Risk's work includes closely measuring and analysing risk and returns as well as reporting on these daily, both in absolute figures and relative to benchmark indices, and reporting any breaches of applicable rules or regulations.

IT & Risk is organised into four different functions: Performance Analysis, Risk Control, System Development & Support, and IT. Of these, the Performance Analysis and Risk Control functions are part of AP4's risk management.

The Performance Analysis function is responsible for the valuation principles for all instruments as well as daily analysis, control and reporting of returns, risks (forecast and outcome), and risk-adjusted returns.

The Risk Control function is responsible for monitoring and control of financial risks — mainly credit and liquidity risks. The Risk Control function is also responsible for monitoring operational risks in the investment operations and for ensuring compliance with rules governing operational risks.

Operational risks in AP4 are to be managed through an established

fund-wide process and methodology. This process includes process mapping, identification and valuation of risks, and shall be conducted for all identified processes at least yearly. Key controls shall be in place for all material risks, which as far as possible reduces the likelihood of risks materialising or mitigates the consequences when undesirable events occur despite all. In the valuation of risks, existing key controls shall be quality-assured to ensure they have the desired functionality and are effective.

As part of the operational risk management process it is especially important to evaluate change processes and their effects on the business. Operational risks are evaluated specifically in connection with the implementation of new products, system changes and organisational changes.

To minimise operational risks, a clear division of responsibilities and authorities shall be documented in written rules and instructions. Applicable processes and procedures shall ensure good internal control and be documented in relevant instructions. The so-called four-eyes principle is applied consistently.

The Compliance function reviews the operations with respect to compliance with laws, regulations and other guidelines, policies, instructions and internal rules, including ethical guidelines. Its responsibility includes providing support to the operations on compliance issues and analysing compliance risks in the operations.

Remuneration at AP4

AP4's role as a manager of Swedish national pension funds requires that the remuneration levels for the Fund's employees, including the CEO, are reasonable, justifiable and explainable.

In general AP4 strives to ensure that its employees' remuneration on the whole is in line with the market and enables AP4 to attract and retain talented employees. AP4 shall not be a salary leader, however.

AP4's board of directors

AP4's board is responsible for addressing remuneration issues in a purposeful, responsible and transparent way. Each year the Board adopts the principles governing remuneration and other terms of employment for AP4's employees.

In addition, the Board conducts an annual follow-up of how these principles have been applied at AP4 during the preceding year, and verifies and certifies that the government's guidelines on terms of employment for senior executives of the AP Funds have been adhered to. As part of this work, with the support of external consultants the Board regularly conducts comparisons of AP4's remuneration levels for both members of the Executive

Management and other employees using salary statistics from relevant, comparable employers in the market.

Remuneration Committee

The Remuneration Committee is appointed by the Board and includes three members. The committee serves in an advisory, monitoring and drafting role for the Board for remuneration matters concerning the CEO and senior executives of AP4.

The Remuneration Committee conducts drafting work for important remuneration decisions in addition to handling other related duties delegated to it by the Board. The committee also conducts drafting work for other matters concerning AP4's remuneration principles and other terms of employment for all employees, and is responsible for monitoring application of these principles. Finally, the committee conducts drafting work behind the assessment of AP4's compliance with the government's guidelines for terms of employment for senior executives of the AP Funds.

The AP Funds' joint policy

A joint policy for remuneration principles, employee benefits, entertainment and business travel for the First, Second, Third, Fourth, Sixth and Seventh AP Funds was formulated in 2012 and was adopted by AP4's board. This joint, overarching policy is

complemented by AP4's more detailed employee-related policies and guidelines, including AP4's remuneration policy. The policies and guidelines referred to above are subject to annual review.

AP4's remuneration policy

According to AP4's remuneration policy, an employee's total remuneration consists of a fixed salary, variable salary, pension and other benefits. No variable salary is payable to the CEO, senior executives, the head of Risk Control and the Compliance officer.

Fixed salary

Fixed salary shall be in line with the market and competitive, but not market-leading. Salaries are set on an individual basis and are commensurate with the level of responsibility and degree of difficulty of the work involved, as well as with the competence and capacity required for each employee's work.

Variable salary

Each year the Board of Directors approves a plan for variable remuneration for all of AP4's employees. No variable salary is payable to the CEO, senior executives, the head of Risk Control or the head of Compliance. The plan provides an opportunity to receive a maximum of two months' salary based on the achievement of predetermined targets based on objective criteria. The targets included in the plan are designed to balance collective achievements with the individual employees' contributions to and responsibility for AP4's overall performance during a rolling three-year period. A variable remuneration award is paid out only if AP4 posts a profit in absolute terms for year that the variable remuneration pertains to.

Pension

AP4 applies the so-called BTP plan under applicable collective agreements with BAO (the Employers Organisation of Swedish Banking Institutions) and SACO (the Swedish Confederation of Professional Associations) for all employees except for the CEO. Employees hired after 1 April 2008 with salaries higher than 10 times the Income Base Amount receive Alternative BTP, a defined contribution pension solution whereby pension premiums are paid in an amount corresponding to 30% of the employee's salary that is higher than 7.5 times the Income Base Amount. For other employees, unless otherwise agreed a mainly defined benefit retirement pension applies, according to the BTP plan. The CEO is entitled to retirement at 65 years of age and receives pension provisions corresponding to 30% of his salary.

Salary exchange/enhanced occupational pension

All employees are entitled to exchange a portion of their gross salary for pension contributions in way that is cost-neutral for AP4.

Other benefits

The combined value of other benefits accounts for a limited value in relation to employees' total remuneration. Examples of other benefits include health insurance, group insurance and a fitness subsidy. AP4 has four parking spaces that the employees can use, for which they are taxed as an employment benefit.

Notice period/severance pay

A notice period for end of employment applies in accordance with the rules of the collective agreement between BAO and SACO for all employees except for the CEO. For the CEO, a mutual notice period of six months applies. In the event AP4 serves notice, the CEO may also be entitled severance pay of 18 months' salary. Upon new employment or for income earned from an own business, the remuneration during the notice period or severance pay is to be reduced by an amount equivalent to the new income.

The Board's follow-up of salaries in 2017

During the year, the Board commissioned a salary survey for all employees based on the guidelines of the Discrimination Act as well as an external market comparison.

The salary survey that was conducted from a gender equality perspective showed in summary that there are no significant differences in salary with respect to equal work, work of equal value, or in female-dominant work categories.

The external market comparison that was conducted covered all of AP4's employees including the Fund's senior executives. The market comparison was conducted of salaries for equivalent positions in the financial sector in Sweden working with long-term asset management.

One of the aims of the market comparison is to ensure that AP4's salaries are in line with the Fund's remuneration policy and the government's guidelines for terms of employment for senior executives of the AP Funds, and thus to ensure that AP4's remuneration levels are reasonable and justifiable without being market-leading, at the same time that they are in line with the market and competitive.

The comparison, analysis and compilation of the external market salary comparison were performed by the external consulting firm Willis Towers Watson, whereby the documentation was obtained from its annual salary and benefits survey for the financial sector in Sweden. Each employee's remuneration was compared with corresponding positions of a group of financial sector actors in Sweden that work with long-term asset management. These are judged to compete for personnel with corresponding responsibilities, experience and expertise required by AP4 for fulfil its mission.

After review of the comparative analysis results, the Board could conclude that AP4 applies remuneration levels that are within established guidelines and that AP4's salaries are competitive, reasonable and justifiable without being market-leading. In addition, it was determined that remuneration of senior executives is in accordance with the guidelines for terms of employment for senior executives of the AP Funds.

Glossary

Active management

Management of a portfolio with a composition that differs from the index in an effort to achieve a higher return.

Active return

The difference in return between a portfolio and its benchmark index. Active return is reported in the Fund's full-year and half-year reports. The term is used synonymously with return vs. index, relative return, and excess return.

Active risk

Risk arising in connection with active management. Defined as the standard deviation in the difference between actual return and index return, i.e., that standard deviation for the active return. Also referred to as tracking error.

Allocation

The breakdown of a portfolio's assets among different asset classes, such as equities, fixed income instruments and currency exposure. The allocation can change over time to improve the portfolio's expected return and level of risk.

Benchmark index

A series of indexes including one or more market indexes against which a portfolio's return and risk are compared. Also called a reference index. The indexes chosen for global equities are MSCI North America, MSCI Europe, MSCI Pacific and MSCI Emerging Markets, adjusted for the Fund's current tax rate in the respective markets and by excluding non-US REITs and hedged to SEK. These indexes have also been adjusted based on ethical aspects by excluding companies mainly in accordance with the recommendations of the Council on Ethics of the AP Funds. The index for fixed income securities consisted of customised government bond and corporate bond indexes from Handelsbanken and Bank of America Merrill Lynch, hedged to SEK. The index for Swedish equities was the SIX60, and the index for Swedish small cap companies was the Nasdaq OMX Small Cap Sweden. For listed properties the index was Nasdaq OMX SC8600GI.

Brake

Automatic rebalancing, also called "the brake", is triggered when liabilities exceed assets in the pension system. This reduces the indexing of pensions until the pension system is once again in balance.

Corporate bond

A bond with a higher credit risk than a government bond.

Credit risk

Credit risk refers to the risk of an issuer or counterparty being unable to meet its payment obligations.

CSA agreement

Credit Support Annex agreement. CSA agreements are annexes to ISDA agreements. CSA agreements regulate how collateral is to be posted for outstanding liabilities in the form of cash or securities.

Currency exposure

Indicates the proportion of the portfolio denominated in a currency other than SEK and for which the currency risk has not been neutralised by hedges.

Currency hedge

Neutralisation of currency risk by converting exposure in foreign currencies to SEK using currency derivatives such as forward contracts.

Derivatives

The collective term for many different instruments. The value of a derivative is linked to the value of an underlying instrument. Forward exchange contracts for government bonds are an example of a derivative with government bonds as the underlying instrument.

Diversification

Diversification refers to spread of risk, i.e., assets having varying correlations with each other, thereby reducing the total risk in the portfolio.

Duration

A measure of interest rate risk. It is a measure of the average remaining term of all future cash flows (coupon and maturity) in a bond or portfolio of bonds. Also referred to as Macaulay duration.

Excess return

Arises when a portfolio generates a higher return than its benchmark or reference index. Equivalent to the active return that is greater than zero.

Fixed income portfolio in tactical management

Comprises fixed income assets including interest rate derivatives. The foreign portion of the fixed income portfolio's reference index is hedged to SEK. The reference index consisted of a customised index of government bonds and corporate bonds from Handelsbanken and Bank of America Merrill Lynch hedged to SEK.

Fundamental analysis

Analysis that aims to forecast a company's future value. Based mainly on information about companies and their operating environments, such as information about the company management, strategy, earnings forecasts, financial position or performance.

Global equities portfolio in tactical management

Consists of equities and equity-based instruments listed on stock exchanges included in countries included in the MSCI World index. (Note that a stock listed on a Swedish stock exchange can be included in the global as well as the Swedish equity portfolio. At the time of purchase, the holding is assigned to a designated portfolio.) Foreign exchange derivatives are also managed in this portfolio. The benchmark indexes were MSCI North America, MSCI Europe and MSCI Pacific, adjusted for the Fund's current tax rate in the respective markets and by excluding non-US REITs and hedged to SEK. The index has also been adjusted based on ethical aspects by excluding companies mainly in accordance with the recommendations of the Council on Ethics of the AP Funds.

Index management

Also called passive management. Management of a portfolio that has the same composition as a chosen index in order to achieve the same return as the index.

Information ratio

A measure of risk-adjusted return. Measured as a portfolio's active return in relation to its active risk. The measure describes the amount of annual excess return that has been measured in relation to the active risk taken. Values over 0.5 for individual years are considered to be a good result.

Investments

In this annual report the term investments refers to the Fund's total assets under management. On the balance sheet, however, investments are defined in accordance with generally accepted accounting principles. This entails that repurchase agreements, cash and cash equivalents, and derivatives with negative market value are reported on the balance sheet under other items than investments.

ISDA agreement

International Swaps and Derivatives Association agreement. ISDA agreements are standard agreements for regulating trading in derivatives between two counterparties.

Liquidity risk

Liquidity risk includes both liquidity risks pertaining to cash flow and liquidity risks in financial instruments. Liquidity risk in a financial instrument consists of the risk that the instrument cannot be sold or can only be sold at a significantly lower price than the market quoted price.

Market risk

Market risk is the risk that the value of an instrument will be negatively affected by fluctuations in share prices, exchange rates or market interest rates.

Modified duration

Measure of interest rate risk. Defined as the percentage change in value of fixed income securities as a result of a one per cent parallel shift in the yield curve. Calculated by dividing the duration (see above) by one plus the market interest rate.

Normal portfolio

A reference portfolio used by AP4 to evaluate with a 40-year investment horizon. This term was used by AP4 through 2017.

Operational risk

By operational risk is meant the "risk of loss resulting from inadequate or failed processes, human error, defective systems or external events". The definition includes legal risk.

Passive management

Also called index management. Management of a portfolio that has the same composition as a chosen index in order to achieve the same return as the index.

Real return

Return less inflation.

Reference index

A series of indexes including one or more market indexes against which a portfolio's return and risk are compared. Also called a reference index.

Reference portfolio

The reference portfolio is a fictitious asset portfolio made up of various market indexes. It serves as a reference for AP4's asset management and enables a systematic follow-up and evaluation of the operation's asset management. See also Benchmark index.

Return contribution

Shows how large a part of the return is attributable to a particular portfolio or decision. Return contributions are usually measured in percentage points. The sum of all return contributions is equal to the total return for the asset management overall or for a specific area, expressed as a percentage.

Sharpe ratio

A measure of risk-adjusted return. Calculated as the portfolio's return less risk-free interest, divided by the portfolio's standard deviation. A high Sharpe ratio indicates a favourable balance of risk and return.

Strategic management

Asset management with an investment horizon of 3—15 years. The term was used by AP4 through 2017.

Tactical management

Active management with an investment horizon of up to three years. The term was used by AP4 through 2017.

Value at Risk (VaR)

A measure of risk that indicates the maximum loss a portfolio risks for a specific period given a certain confidence level.

Volatility

Volatility is a measure equal to the standard deviation for the return on an asset. It shows how much the return varies. Unless stated otherwise, standard deviation is measured using 12-month daily history.



AP4's mission is to contribute to financial security for today's and tomorrow's pensioners.