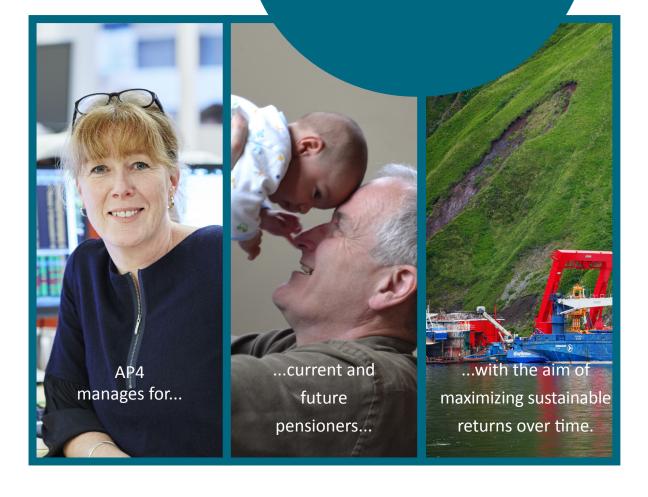


With a profit of SEK 31 billion, fund capital increased to SEK 334 billion.



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The Fourth Swedish National Pension Fund's (AP4) annual report describes AP4's management during 2016. The report is supplemented by AP4's Sustainability and Corporate Governance report and the AP Funds Ethical Council Annual Report. Together, the reports describe the work AP4 is engaged in. All reports are available at www.ap4.se. The figures in this report's tabels and charts are displayed separately, so the total does not always correspond with the parts. Figures in parentheses refer to the previous year.

Global Reporting Initiatives (GRI) publishes international guidelines for sustainability reporting that are used by companies and organisations all over the world. AP4 reports as far as possible in accordance with GRI's guidelines Version G4 level "Core" and the sector-specific addition for Financial Services. AP4's GRI report has not been audited by a third party and is presented on www.ap4.se.

We hope readers find the report interesting.

# AP4 surpasses the long-term goal

AP4's fund capital increased to SEK 334 billion, with a return of 10.0 percent after expenses. AP4 outperformed both the long-term targets and the income index by a wide margin.

334

billion crowns in fund capital

31

billion crowns total profit

10%

total return after costs

# **Awards**

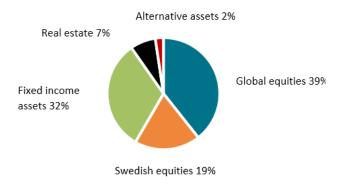
both in Sweden and internationally for AP4's environmental work, governance structure and reporting

## AP4 surpassed both the income index and the longterm target



Since the launch January 1, 2001, total return after expenses was, on average, 5.9 percent annually, surpassing the income index that increased by a corresponding 3.0 percent annually. AP4 has thus contributed positively to the stability of the pension system.

### Listed shares more than half of the assets



# AP4 contributes to safeguarding pensions

Everyone that works, receives a salary and pays taxes in Sweden collects a public pension. AP4 manages buffer capital for current and future Swedish pensioners and is part of the Swedish State pension system.

#### Mission

AP4's mission is to contribute to the pension system's stability by managing capital with the aim to maximize returns over

time. Environmental and ethical issues must be taken into account without compromising the goal of the best possible return. AP4's Board of Directors and the business operations should not be controlled by Government directives or by business policy or economic policy interests. Investment rules are specified in the law (2000:192) regarding public pension funds (AP Funds).

the AP4 Funds when there is a deficit in the pension system.

Capital is withdrawn from

## Net payments continue

For the eighth consecutive year, the AP Funds injected capital to cover the pension system's deficit between pension contri-

butions and premiums paid. AP4 has in total paid out SEK 37 billion since the pension system's net flows became negative.

A basic idea of the Swedish pension system is that it should be generation neutral. The AP Funds are buffer capital to be used to offset the demo-

graphic differences between different generations. Namely, capital is withdrawn from the AP Funds when there is a deficit in the pension system, which today is in part due to the large age group of the so-called Baby boomers that have now retired. It is expected that pension capital from the AP Funds will be used to balance the system's commitments over the next 20 or more years.

## Sustainability is important long-term

With the stated goals within the focus areas of Sustainability and Corporate Governance, AP4 works, among other things, to reduce climate risks in the assets with the help of low-carbon strategies as well as green bonds. AP4 measure and publishes its carbon footprint annually. AP4 is involved in several international collaborations and ownership initiatives within sustainability.

Key ratios, as per closing date	2016	2015	2014	2013	2012
Fund capital, flows and net profit, SEK bn					
Profit for the period	30.5	20.1	40.2	37.0	23.4
Net flows, pension system	-6.6	-4.9	-5.1	-6.9	-3.8
Fund capital	333.9	310.0	294.9	259.7	229.6
Return, %					
Return, total portfolio before costs, %	10.1	6.9	15.8	16.5	11.3
Return, total portfolio after costs, %	10.0	6.8	15.7	16.4	11.2
Return, total portfolio after costs, annualized 5 yrs.	12.0	9.7	10.5	11.6	3.3
Return, total portfolio after costs, annualized 10 yrs.	6.7	6.7	7.6	7.2	7.2
Operating cost ratio % of AuM, annualized					
Operating costs	0.06	0.06	0.07	0.08	0.08
Operating cost and commission fees	0.10	0.11	0.11	0.11	0.10
Strategic management, 3-15 years					
Active return (compared to index), %-points	1.0	4.8	0.7	1.2	-0.4
Tactical management, up to three years					
Active return (compared to index), average 3 years, %-points	0.3	0.4	0.7	0.6	0.7

## AP4 in brief - 2016

## Outperforms the long-term goal

Over the past ten years AP4 has returned 91 percent after expenses. This means an average return after expenses of 6.7 percent per year; this corresponds to a real return of 5.5 percent net of inflation, and exceeds AP4's real long-term target of 4.5 percent.

Since the launch, January 1, 2001, AP4's total return after expenses has increased on average 5.9 percent annually. This surpasses the income index, which increased by a corresponding 3.0 percent annually. AP4 has thus contributed positively to the stability of the pension system. AP4's real return since inception, over and above inflation, amounts to 4.6 percent, thus exceeding the long-term target of 4.5 percent real return. Please see graph on page 2.

#### Low management costs

AP4's goal is to create maximum sustainable returns after expenses over time. Cost efficiency is important to reach the goal. AP4's management fee is 0.10 percent, which is low and competitive in both domestic and international comparisons.

#### Positive contribution from all time horizons

AP4 has a management structure with three investment horizons: 40 years, 3 - 15 years and up to three years. The management structure allows for investment opportunities, with diversified horizons, that can be utilized and managed. Since the management structure was implemented in 2013, all investment horizons have generated positive earnings contributions. Profit contribution has totalled SEK 129.1 billion over the four years.

Normal portfolio - 40 years is a reference portfolio comprised of an index. The largest contribution over all four years, including 2016, resulted from the board's long-term decision to hold a high proportion of listed shares.

The Strategic management - 3 – 15 years, since the management structure was introduced in 2013, Strategic management has contributed SEK 21.6 billion to earnings, where Swedish equities and real estate contributed the most. In 2016, Strategic management has, as every year since inception, delivered a return better than the index.

The Tactical management – up to three years, has contributed positively to results over time. The evaluation horizon is a rolling three-year period, and active positive contribution to returns amounted to 0.7 (1.3) percentage points, corresponding to a profit contribution of SEK 1.7 (2.5) billion. The 2016 return was marginally better than the index. Three of the five sub-portfolios contributed positively.

## Sustainability and Corporate Governance in focus

AP4 works with two focus areas - Sustainability and Corporate Governance - where each has a number of goals.

Within sustainability AP4 works, among other things, to reduce climate risk in the assets with the help of various low carbon strategies, as well as green bonds. AP4 measures and publishes the carbon footprint annually, which can be found at www.ap4.se. During the year, AP4 resolved to not invest in tobacco shares. AP4 estimates that over time tobacco companies will underperform the index. Long-term these companies risk being considered so-called "stranded assets", in part because of increasingly restrictive regulations globally on tobacco products. Please read more on page 22. AP4 is also involved in several international collaborations and ownership initiatives concerning sustainability.

Within Corporate Governance AP4 participated in 27 Swedish nomination committees during 2015/16. Nomination committee work is prioritized, and AP4 commits considerable importance to efforts for greater diversity and more women on boards. During 2016 AP4 voted at the AGMs of 100 Swedish and 798 foreign companies.

The First - Fourth AP Funds cooperate through the joint Ethical Council to influence companies to make sustainability improvements, among other things. The ongoing work includes: preventive and reactive dialogues with foreign companies — approximately 250-300 dialogues yearly; sector projects; international collaborations; and initiatives.

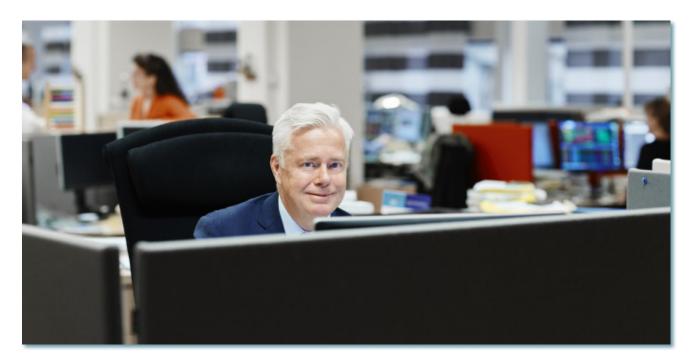
## Awards for AP4's management and sustainability work as well as reporting

AP4's efforts receive positive attention in several different contexts, both in Sweden and internationally. In 2016, AP4 received several awards, and the AP Funds' Ethical Council also received an award. AP4 was ranked 3rd globally by 500 institutional investors of the Asset Ownership Disclosure Project (AODP) for its sustainability work. AP4 also received a special mention at the awarding of the 2° Invest Award in France and was awarded the IPE Awards 2016 - Long-Term Investment Strategy.



Tobias Fransson, Head of Alternative Investments at AP4, at the award ceremony for the 2° Invest Award in Paris.

## Letter from the CEO



There are very few countries that can claim they have a public pension system of the quality and strength that we have in Sweden, and I look forward to once more contributing to the strengthening of the pension system by developing the management of its buffers capital.

I assumed the role as AP4's CEO October 1, 2016. A fact that means I in no way can take credit for the strong efforts and results that AP4 has delivered during most of 2016, and for prior years. For this reason, I would like to begin with a big thank you to the previous management, the Board and the entire staff of AP4.

Being the CEO of a National Pension Fund is an extremely exciting, challenging and stimulating assignment. It is also a highly responsible task to contribute to the safe and sustainable pensions for all individuals connected with the Swedish public pension system. Consequently, I was very happy and honoured when the Board of Directors offered me the position of CEO - an assignment that I also feel an immense respect and humility for.

This is my second time working within the AP Funds. In the early 2000's I helped to build up one of the AP Funds in connection with the reform of the public pension, Allmän Pension. Now that I again have the privilege to see the system from the inside, I am pleased to say that the AP Funds have continued to develop in a very positive way. All the AP Funds have outstanding management founded on international standards. In addition, each fund has chosen to implement the

mandate in various ways, yielding the diversification that the legislation sought to achieve. This, together with the structure and the built-in stability of the Swedish public pension system, is something we should be proud of.

#### Strong results

Earnings were strong in the past financial year, 2016. The return on our investment portfolio amounted to ten percent after expenses. This corresponds to a profit of SEK 31 billion and a fund capital that reached SEK 334 billion at year end.

Including the 2016 contribution, return since inception January 1, 2001, amounted to 5.9 percent per year after expenses - surpassing with a substantial margin the 3.0 percent that was the annual increase in the income index during the same period. In real terms, AP4 has returned 4.6 percent annually since start, which exceeds the long-term target of 4.5 percent. The historical performance should also be seen in the perspective of the very turbulent periods AP4 has experienced since its inception, including an IT bubble (2001/2002), a financial crisis (2007/2009), a debt crisis (2010/2011) and then a period of extraordinary monetary policy.

AP4 has a strong focus on managing capital as cost-effectively as possible. However, it is not relevant to analyse the cost base in isolation. What is important is what you gain from the investment in the operations – that is to say, long-term returns after expenses. Alternatives in implementing the management mandate can mean significantly different cost bases, but also different return potentials. That said, for 2016 AP4's expenses amounted to 0.10 percent of managed assets, which is competitive in comparison with pension funds with similar mandates in Sweden and abroad.

The First - Fourth AP Funds collaborate in a variety of areas to jointly develop and enhance the AP Funds as cost effectively as possible. In 2016, the level of ambition for cooperation was further increased. Among other things, a council for cooperation was established with a firm mandate from the CEOs of the respective AP Fund's.

## Return, long-term approach and sustainability

AP4's historical results is to a significant extent due to the

ability to exploit the degrees of freedom available through the mandate AP4 has received through legislation. Many regulations and other structures currently compel many investors towards increased short-termism. In this respect, the AP Funds have an almost unique mandate. The long-term approach gives AP4 the opportunity to fully capture the potential of investments with the perseverance to withstand volatility when that promotes long-term returns.

"A very important factor for success for AP4 is to further build and strengthen our culture to succeed in keeping and attracting the most qualified specialists, who also feel a social responsibility."

In addition to the choice of time horizon, legislation also provides AP4 degrees of freedom when selecting asset classes and the portfolio structure. This gives the fund good potential to use the powerful tool of diversification, which over time creates good stable returns. AP4 intends to further increase the ambition by establishing an investment philosophy and building an investment portfolio that takes full advantage of the opportunities that our mandate and assignment offers. Among other things, an overall grasp of the aggregate portfolio will be employed to strengthen and broaden expertise to enhance the ability to generate investment opportunities with a long- or medium-term horizon.

The integration of sustainability aspects - such as ethics, the environment and social responsibility - in the management is a necessity for a long-term investor to correctly assess potential returns and risks of different investment options. For AP4 integration of sustainability is work-in-progress in which the importance of various sustainability factors changes rapidly and great emphasis will be placed on continuing to broaden and develop AP4's sustainability efforts.

Climate change is an important and highlighted focus area within sustainability and receives major focus by AP4. Since 2012, AP4 has established a global low-carbon strategies platform comprising three internal and three external managed low-carbon mandates. Currently, AP4 has 24 percent of the global equity portfolio invested in low-carbon strategies. The goal is to further reduce climate risk in the assets by both increasing investments in terms of volume and by looking for new effective strategies that strengthen companies' incentives to reduce their carbon footprint.

Another important focus area is corporate governance, which is an important tool to form and safeguard shareholder value. During 2016, AP4 was very active within this area. For example, AP4 worked in 27 nominating committees, participated in 100 Swedish AGM's and voted at the general meeting of 798 foreign companies. Through our corporate governance work we conduct dialogues with companies in a variety of areas that varies depending on what is important for the specific company.

Our corporate governance work is also an important channel to influence in terms of sustainability.

Successful portfolio management is a knowledge-intensive business. To succeed in our mission, AP4 must able to attract, develop and retain people with great skills and potential - a culture with a deep desire to develop and be constantly at the forefront is a prerequisite for this ambition.

Finally, I want to again emphasize how pleased and honoured I am to be CEO of AP4. Being the CEO of an AP Fund also means a great responsibility that I have considerable respect for. I, together with all AP4's employees, will do our utmost to live up to the trust we have been given. 2017 will be a busy year for AP4. In addition to maintaining full focus on the management mandate in a difficult macroeconomic and geopolitical environment, a lot of energy is devoted to updating AP4's strategy to broaden the element of long- and medium-term positioning, as well as to expand the sustainability element in the investment portfolio.

Niklas Ekvall, CEO

# Market developments 2016

Very low interest rates and a gradual increase in growth rates led equity markets to go higher during the year. Uncertainties surrounding European cooperation and future US policies has increased.

## Interest rate cuts at the beginning of the year

The significant and rapid fall in oil prices and raw materials during 2015 meant a deflationary shock in the global economy. It negatively affected the propensity to invest and severely impacted, in particular, growth markets and cyclical companies. Growth slowed and corporate profits fell, which contributed to a negative trend in global equity markets at the beginning of 2016.

This development led several central banks to respond strongly with significant interest rate cuts. Moreover, the Chinese government unveiled a comprehensive growth-stimulus programs, which included measures to promote credit demand, increased investment and structural reforms.

## Equity markets climbed upwards

Global growth stabilized; the various measures taken during the summer gave a positive effect with rising commodity prices and better growth development in the Chinese economy. An unexpected "yes" to Brexit, the UK referendum in June, led bond yields to fall to new lows. The exceptionally low interest rates and a gradual increase in the growth rate led equity markets to go higher despite the increased uncertainty that emerged around European cooperation.



## Shares increased during the sector rotation

After a relatively weak first half of the year for global equity markets (MSCI AC), equities increased in the second half of the year - benefited by very low bond yields and increased growth. MSCI AC, measured in USD, returned approximately 9 percent during the year. The sector rotation was extensive. Banks, energy, raw materials and pharmaceutical companies together with industrial companies performed well, while defensive and interest sensitive sectors were relatively weak.

### Cautious optimism at the end of the year

During the last quarter of 2016, real growth strengthened further while inflation and inflationary expectations increased. A cautious optimism about a possible increase in investment willingness during 2017, and consequently improved prospects for higher real and nominal growth, resulted in a continued upturn in equity markets. Bond yields also increased.

The outcome of the US presidential election was a surprise. It is still difficult to convert election results to economic assessments. Tax cuts and investments in infrastructure in isolation can be expected to boost growth in the United States with effect mainly from 2018 and onwards. Increased protectionism and restrictions on immigration runs the risk of leading to increased uncertainty and slower growth in emerging markets and eventually also in the US and globally.



## Volatile bond rates

During the weak start to the year, bond rates fell and all major bond markets showed sharp falls in interest rates in connection with Brexit, which contributed to the good performance of the equity markets. During the fourth quarter, long-term bond rates increased sharply with gains of between 0.5 and 1.0 percentage points. The increase was driven by higher real growth, rising inflation and inflationary expectations.

### The Swedish krona weakened

Currency movements were substantial during the year. The Swedish krona weakened significantly against most currencies, including the euro.

# Asset values and return - 2016

AP4's assets of SEK 334 billion are invested in different asset classes such as equities, fixed income securities and real estate.

## This year's return - Ten percent

AP4's total return was 10.1 (6.9) percent before expenses and 10.0 (6.8) after expenses. Return corresponded to a total profit, after expenses, of SEK 30.5 (20.1) billion.

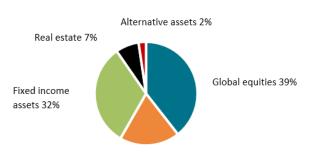
The value of AP4's different assets and returns are presented below.

Asset class	Market value, SEK bn	Portfolio return, %	Exposure <sup>1</sup> , %
Equities, total	194.8	8.9	58.3
Global equities	131.5	7.3	39.4
Swedish equities	63.2	12.4	18.9
Fixed income assets	107.1	2.0	32.1
Real estate	24.5	25.9	7.3
Alternative assets	7.8	3.4	2.3
Currency	0.0	2.3	0.0
Other <sup>2</sup>	-0.2	-0.2	-0.1
Total investment assets	334.0	10.1	100.0

Asset class	Contribution to total return, %	Contribution to profit/loss
Equities, total	5.5	17.4
Global equities	3.3	10.3
Swedish equities	2.3	7.2
Fixed income assets	0.8	2.1
Real estate	1.6	5.1
Alternative assets	0.1	0.3
Currency	2.3	6.6
Other <sup>2</sup>	-0.2	-0.7
Total investment assets	10.1	30.9

<sup>&</sup>lt;sup>1</sup>Underlying values of derivatives in the passive allocation are allocated to each asset class.

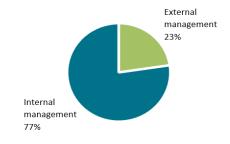
## Listed shares more than half of the assets



Swedish equities 19%

Listed shares, both global and Swedish, represent more than half of the assets at year-end.

## Internal and external management



77.3 (77.6) percent of the assets were managed internally. The remaining 22.7 (22.4) percent of the assets were managed externally, of which 10.4 (10.0) percent in external index management.

AP4 manages internally when an overall assessment shows that an internal management can achieve the same or better performance at a lower cost.

 $<sup>^{\</sup>rm 2}$  "Others" consist of cash as well as strategic and tactical asset allocations.

<sup>&</sup>lt;sup>3</sup> Returns and profit before expenses. Return after expenses was 10.0 percent, corresponding to a profit after expenses of SEK 30.5 billion. Investment assets amounted to SEK 334.0 billion, of which the fund capital is SEK 333.9 billion kronor.

# Management structure and asset classes

A management structure with three long term investment horizons gives AP4 opportunity to take advantage of more investments with expected good returns, which also lowers the risk in the asset portfolio. All investment horizons contributed positively since the inception of the new structure in 2013.

Normal portfolio, 40 years

Strategic management, 3-15 years

Tactical management, up to three years

### Three investment horizons

The management structure implemented in 2013 has three investment horizons: Normal portfolio, 40 years; Strategic Management, 3-15 years; and Tactical Management, up to three years.

The Normal Portfolio is AP4's reference portfolio where the asset-allocation is resolved by the Board. It has a time horizon of 40 years.

AP4's assets, such as equities, fixed income securities and real estate are managed within the Strategic and Tactical Management.

Strategic Management has an investment horizon of 3-15 years and Tactical Management has an investment horizon of up to three years.

The evaluation period for the management structure is a rolling five years, which means that 2017 will be the first full evaluation period.

## Long-termism characterizes the strategy

The management structure allows AP4 to better take advantage of its long-term mission. The structure allows for more investment strategies and increased risk diversification. This means increased opportunities for positive excess returns. The structure allows for a slightly longer-term investment horizon than that of the average term of the investor community, and is expected to increase AP4's potential for high returns over time.

## Transparency

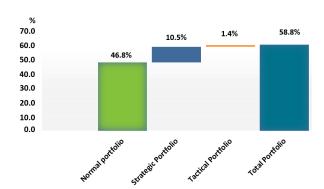
The management structure provides high measurability and transparency regarding return, risk and costs. The Board and other stakeholders are also better able to oversee and evaluate AP4's management.

#### Positive contributions from all investment horizons

For 2016 management profits before expenses amounted to SEK 30.9 (20.4) billion, where SEK 3.2 (14.3) billion were attributable to the Strategic and Tactical Management.

Since the implementation of the management structure in 2013, all investment horizons have generated positive earnings contributions. The total profit contribution over the four years was SEK 129.1 billion. Strategic Management contributed SEK 21.6 billion and Tactical Management contributed SEK 2.6 billion.

## The investment horizon contributions over four years



# The Normal portfolio - 40 years

Over time, the proportion of equities relative to the proportion of fixed income

securities is critical to returns.

## The Normal portfolio is comprised of indices

The Normal portfolio is AP4's reference portfolio and is comprised of several different indices. It has a 40-year time horizon, with an asset allocation that is resolved by the Board annually.

The Normal portfolio reflects the mix of liquid asset classes that are expected to provide a total return that achieves AP4's target of a 4.5 percent real rate of return, with low risk of reduced pensions. The time horizon is 40 years, and takes into consideration the investment rules governing AP4.

## Equities provide good returns over time

Equities are an asset class with an expected high long-term return. Short-term, equities also have high expected volatility and, relatively, returns can be expected to vary sharply from year to year.

A high proportion of equities over time can therefore be expected to contribute to the increase of AP4's fund capital. The resolution to have a high proportion of equities in the long-term Normal portfolio is a prerequisite for the possibility to create a high positive return over the long term. Long-term this contributes to good value creation in the pension system and to the systems financial strength – a requirement needed to meet the pension system's long-term commitments.

Normal portfolio	2016-12-31 2016-01-01 - 201		016-12-31	
Asset class	Weight,	Foreign exchange exposure, %	Return, %	Return contri- bution, %
Equities	66.3		7.8	5.5
Government bonds	33.7		3.2	1.3
Currency	-	30.9	2.3	2.3
Total	100.0	30.9	9.1	9.1

The Normal Portfolio consists of 66 percent equities, which means that AP4's returns are largely determined by developments in global equity markets.

Since the management structure was introduced in 2013, the Normal Portfolio has positively contributed SEK 104.9 billion kronor to earnings, of which equities account for SEK 75.1 billion kronor.



## Long-term perspective - 30-40-year retirement context

Longer evaluation periods are required when evaluating the performance of asset classes. Thirty to 40 years is a fair perspective in a pension framework.

## Performance of equities and wages over time<sup>1</sup>

Equities' real return (adjusted for inflation) over the past 90 years have varied greatly. The average real global equity returns between 1924 - 2014 was 6.1 percent per year.

The real return on equities during the various ten year periods fluctuated sharply - more than 20 percent per year (80's) down to negative numbers in other periods. Large differences between successive ten-year periods is common.

Equities require a 35-year evaluation period in order to reasonably comparable a stable real value trend for equities with that of real wage growth, which is based on a ten-year evaluation period.

Real wage growth largely controls the income-value performance. The real wage growth in the period 1918 - 2012 was 2.1 percent per year. This is a significantly lower increase in value as compared to a capital investment in equities over the same period.

The difference between equities and real income development has been greatest during the past two to three decades, when equities real performance has exceeded the real wage growth. The investment horizon, as such, should be long-term in order to take advantage of equities positive performance over time. AP4's has a long-term mandate and thus a long-term investment horizon.

 $<sup>^{\</sup>mbox{\tiny 1}}$  Source Orange Report 2015, Pensionsmyndigheten.

# Strategic management, 3-15 years

Just under a third of AP4's assets are managed in the Strategic Management; the investment horizon is between 3 - 15 years.

#### Increases returns and reduces risk

Strategic management represent 32.9 (30.2) percent of AP4's investment assets. This corresponds to SEK 110.0 (93.6) billion.

Since the start in 2013, the Strategic management made positive contributions to earnings annually. During the period, the total contribution amounted to more than SEK 21.6 billion. Strategic management also contributed positively by lowering the risk in AP4's assets while increasing returns.

The investment horizon is 3-15 years. A shorter time horizon is deemed to create restrictions on the management, which can lead to a worse result due to, among other things, the assets considered relatively illiquid; it may be difficult with too short time horizon to sell or buy these assets without having the price negatively affected. The evaluation period for the Strategic management is five years and a full evaluation period will be attained at the end of 2017.

The Strategic management investments include: real estate; AP4's overweight of Swedish equities and fixed income securities; Swedish small cap portfolio; and various sustainability strategies such as AP4's low carbon strategies.

## Real Estate contributes positively

AP4's real estate investments are managed in the Strategic management. The market value of the real estate portfolio, which consists of several different mandates, including a publicly listed mandate with a focus on Swedish publically listed real-estate companies. The market value at year-end was SEK 28.9 (22.7) billion, of which the listed real estate mandate amounted to SEK 4.4 (2.2) billion. Since the management structure was implemented, real estate has contributed positively with SEK 9.8 billion.



Photo: Birger Jarlsgatan, Stockholm, Vasakronan

## Overweight in Swedish equities contributed positively

For several years, AP4 has held a position in Swedish equities representing an overweight.

The holdings in Swedish equities has contributed positively by SEK 6.5 billion since 2013, and the assets amounted to SEK 63.3 (57.4) billion at year end, representing almost 19 percent of the assets. This corresponds to an overweight of 18 percent relative to the Normal Portfolio, which is the Strategic management's benchmark portfolio. The Normal portfolio uses a global stock index, where Swedish equities account for one percent. The overweight in Swedish equities was the largest strategic management position.

The position in Swedish equities is based on AP4's conviction that over time the Swedish equity market will develop better than equity markets globally.

### Swedish equities provide good returns over time

The Swedish equity market has performed relatively better than many other markets over time. One explanation for this is a combination of: a well-functioning economy/social structure; a sound Swedish Companies Act; self-regulation through the Swedish Code of Corporate Governance; and a clear governance model regarding the division of responsibilities and authority for Swedish listed companies. Even the considerable element of major owners in Swedish listed companies, and the responsibility and engagement by institutional investors in companies, is believed to contribute to Sweden's relatively good market performance.

The Swedish equity market also exhibits higher volatility than many other markets, which given the overweighting in Sweden means AP4's performance from year to year can be volatile. However, this is judged to be manageable and is outweighed by the expectation to generate relatively higher returns over time for the Swedish pensioner given AP4's long-term mission and investment horizon.

### Fixed income - a strategic overweight

For several years, AP4 has maintained a strategic overweight in fixed income securities, which since the inception of the management structure has made a positive contribution of SEK 0.9 billion. The overweight in fixed income securities amounted to SEK 42.6 (42.0) billion at year end, equivalent to 12.7 (13.6) percent of AP4's assets. AP4 believes that long term the fund will achieve better returns by allocating capital to fixed income securities with good credit ratings such as government bonds.

# Tactical management, up to three years

Over the past eight years, since the introduction of the current management structure, active Tactical management returns have surpassed the index.

Tactical management invests primarily in fixed income securities and global and Swedish equities. The management mandate, based on an investment horizon of up to three years, is to create excess returns and outperform the index. To surpass the performance of passive index management, Tactical management identifies and invests in securities with expected positive long-term growth by taking advantage of the investments estimated revaluation potential and market mispricing.

Tactical management	Active return contribution,	Active earnings contribution, SEK mn
Global equities	-0.2	-592
Swedish equities	0.1	264
Fixed income	0.2	505
Equities index <sup>1</sup>	-0.0	-101
Currency <sup>1</sup>	0.0	11
Total tactically managed assets	0.0	87

The Tactical management's active return was 0.0 (0.1) percentage points for the full year, which was marginally better than the index. This corresponds to an active profit contribution of SEK 87 (187) million in 2016. Three of the five management units contributed positively.

For the evaluation period, a rolling three years, the positive active return was on average 0.3 (0.4) percentage points.

## Information ratio

The information ratio is used to measure risk-adjusted return. The measure describes the annual excess return achieved in relation to the active risk taken.

Daily data has been used in the calculation of AP4's riskadjusted returns. Daily data is a more conservative calculation method as it produces a lower information ratio than if, for example, weekly or monthly data was used.



## Eight years exceeding the index

Over the past eight years, since the current management structure was implemented, the active Tactical management generated a return better than the index. During the eight years, the positive earnings contribution above the index was nearly SEK 8 billion.

### Good risk-adjusted return

Values of risk-adjusted return (information ratio) that are above 0.5 for individual years is typically considered a good result. The risk-adjusted return, since the implementation of the current management structure, has been good. The information ratios of the various management units are generally high.

On average, during the past three years, the information ratio for the Tactical management amounted to 0.8 (1.3).

3 years (on annual basis)	2016	2015	2014
0.2	neg	0.9	1.7
0.8	1.1	1.8	neg
0.7	1.4	neg	3.2
neg	neg	neg	neg
0.5	0.1	2.3	neg
0.8	0.1	0.2	2.9
	(on annual basis)  0.2  0.8  0.7  neg  0.5	(on annual basis) 2016  0.2 neg 0.8 1.1  0.7 1.4 neg neg 0.5 0.1	(on annual basis)         2016         2015           0.2         neg         0.9           0.8         1.1         1.8           0.7         1.4         neg           neg         neg         neg           0.5         0.1         2.3

## Equities

Equities accounted for more than half of AP4's assets with a positive value growth for five consecutive years.

### Equities accounted for more than half of the assets

Global and Swedish listed shares together accounted for more than half of the investment assets at year end, corresponding to 58.3 (56.9) percent.

## High returns

AP4's global equities return amounted to 7.3 (1.7) percent and 12.4 (14.1) percent for Swedish equities.

Global and Swedish listed equities accounted for more than half of the assets. At the end of the year 58.3 (56.9) percent of assets were invested as follows: 39.4 (38.4) percent global equities, and 18.9 (18.5) percent Swedish equities. The market value of listed shares amounted to SEK 194.8 (175.0) billion.

## Equity management

Equity management is conducted within two units, Global equities and Swedish equities, where capital is managed through several different strategies.

### Swedish active management

For years, the Swedish active equity management has outperformed the index with good risk-adjusted returns.

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

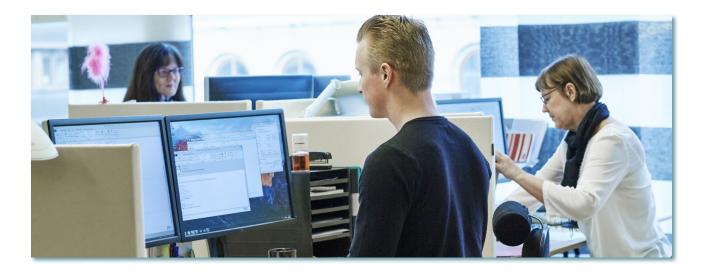
### Global active management

Global management focuses on the selection of external managers, portfolio construction and index management.

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

AP4 reduces climate risks in assets by including investments in **low carbon strategies**. AP4 has a global platform for these strategies and they accounted for about 24 percent of the global equity portfolio, equivalent to SEK 30 billion at year end. Please read more on page 20.

During 2016, AP4 resolved to **not invest in tobacco shares.** Growing long-term risks, including increased regulation, is estimated to negatively affect tobacco companies' valuations in the future. AP4 estimates that over time tobacco companies will underperform, and long-term these companies risk becoming so-called "stranded assets". Please read more on page 22.



## Interview with Jannis Kitsakis, Senior Portfolio Manager, of small and medium-sized companies

## Tell us about your background and your job at AP4?

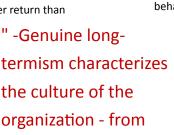
-I graduated with a MSc in Business and Economics and I have worked in the equity market since I graduated - a total of 17 years. I started at AP4 in 2008 and have since worked in the Swedish Equities unit, says Jannis. Today I am the responsible portfolio manager for AP4's internal Small Cap portfolio. This means I follow and analyse the small and medium-sized companies listed on the Stockholm Stock Exchange and make investment decisions. The small cap portfolio has approximately 60-70 holdings and assets of SEK 9 billion, which I actively manage.

### What does active management imply?

-For us at AP4, we want to create a higher return than

index management, which means actively taking positions in individual shares that we believe have the potential over time to generate a return greater than the index. Generally, we evaluate our investment in the long term and our investment horizon is over several vears.

" -Genuine longtermism characterizes the culture of the organization - from the board down."





For example, I read reports and various analyses, says Jannis. I also try to continuously meet with representatives of companies.

-Besides the obvious analysis criteria, such as the company's accounting and share valuation ratios, I focus, for example, on the structure of the company's ownership and its governance. The owners, the Board and management's behaviour is of course crucial for a company's long-term

> development. It is also important to look at the company's long-term market trends, says Jannis.

-As a portfolio manager, having experience and acquiring good knowledge of a company's history and its representatives is usually very helpful when an overall assessment is made, he continues. Another benefit is having the ability to engage with experienced and talented colleagues before making investment decisions.

## Why do you like working at AP4?

-One of the advantages is AP4's very long-term mandate. The management mandate and trust assigned by the board is long-term. Our management is not affected by on-going liquidity flows in and out of the fund, which a fund with active unitholders must consider, says Jannis. I think these are good prerequisites to pursue successful management - in particular for small- and medium-sized companies.

-Genuine long-termism characterizes the culture of the organization - from the board down. That, combined with a good "track record" for AP4, means that we, who make investment decisions, have the confidence to continue to think long-term - even in periods when results do not go as planned, explains Jannis.

## What is your analysis and investment process?

- -The analysis and investment process is basically fundamental and very manual. There is no "ready-made template" you can use, but work is complex and differs depending on the company being analysed.
- A great deal depends on information gathering and assembling a thorough understanding of the companies.

#### How was 2016?

-The year has been very good. A return of close to 19 per cent is fully approved, says Jannis. Above all, I am very pleased with the relative return, which meant that the Small Cap portfolio performed better than the benchmark index by more than seven percentage points.

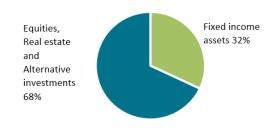
#### Any events that stand out?

- -I am pleased that we could support two very interesting companies where AP4 is a co-owner - the IT company CLX Communications and probiotics company Probi. Both companies issued shares during the year in connection with acquisitions in the US, says Jannis. I am also pleased that AP4, the largest shareholder in Gränges, contributed to the selection of a very good board through successful nomination committee work during the year.
- For many years, AP4 has successfully participated as an anchor investor in connection with IPOs. During the Autumn, we had the opportunity to invest in a new interesting company, Volati, which is an industrial group consisting of about 40 different subsidiaries that has an exciting acquisition agenda in front of them.

## Fixed income assets and Currencies

## 2016 was characterized by low, and at times negative, long-term interest rates.

## Fixed income holdings accounted for over a third of the assets



Fixed income assets such as government and corporate bonds accounted for over a third of the investment assets at year end.

#### Fixed income assets

At year end, the market value of the fixed income portfolio amounted to SEK 107.1 (103.8) billion, equivalent to 32.1 (33.8) percent of total assets.

In an environment with very low, and even negative interest rates, the return of AP4's fixed income assets amounted to 2.0 (-0.1) percent.

### Global macro management

AP4's Global macro management is responsible for the management of all fixed income securities and currencies, and it is actively managed with the goal of creating a higher return than the index.

Investments in **government bonds** are limited to the European countries, the US and Australia.

Investments in **corporate bonds** should have a BBB rating or higher. AP4 has a strategic overweight in corporate bonds.

The management evaluates and invests in **green bonds** when they meet AP4's criteria for sustainability and profitability. Read more on pages 19 and 21.

### **Currencies**

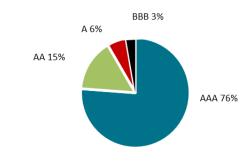
AP4 hedges portions of the foreign assets. Currency management works in part with the management of AP4's currency-hedging portfolio and in part with active currency trading. AP4's currency exposure, the proportion of assets in foreign currencies not neutralized by hedges, amounted to 26.9 (27.0) percent of the assets at year end.

## Fixed income holding by issuers



Corporate bonds accounted for just under half of fixed income holdings, Dec. 31, 2016.

## Fixed income holding by rating category



AAA-rated bonds accounted for three quartes of AP4's fixed income holdings, Dec. 31 2016.





Interview with Bengt Lindfeldt, Head of Global Macro of AP4 and Torbjörn Kronblad, Senior Manager Global Macro of AP4.

### "Zero interest rate environment," what does that mean?

- Today, some bonds trade at a negative interest rate in several countries, such as Sweden, Germany and France, says Bengt. Negative interest rates mean that those who buy bonds, and as such lend money to governments or companies, must pay to lend capital.

### Why use negative interest rates?

- The last few years have been characterized by low global growth with overcapacity in the economies, high debt and falling inflation, adds Torbjörn. Central banks have tried to stimulate increased consumption and growth with the help of sharp interest rate cuts, but this has not been enough.
- -As a result some central banks notably in Japan, the euro area and in Sweden tried more unconventional monetary policy, and to buy back government bonds prematurely, and lower the key interest rate to a negative rate, continues Torbjörn. Central banks hoped that these unusual measures would encourage increased consumption and investments, which in turn would help boost economic growth.

#### What are the consequences?

- -A positive short-term effect of falling interest rates is that the bonds will increase in value, says Bengt. The problem is that there are no returns when re-investing in today's zero-interest-rate environment in the western economies. Another short-term positive effect with negative interest rates is that it weakens a country's currency, which initially favours the country's exports and thus growth.
- -One problem if interest rates are extremely low for longer periods is the increased risk for unprofitable investments, says Bengt. An example of this risk is housing prices, which are increasing given it is cheap to borrow, potentially creating a so-called real estate bubble that could burst with sharp price declines when interest rates normalize and begin to rise again.

- Another problem with excessively low interest rates is that investors need to increase their savings to achieve their capital target, which means less money left for consumption and investment.

#### What actions has AP4 taken?

- -AP4 has chosen to have a low proportion of fixed income securities in the total portfolio. By law, however, AP4 must have at least 30 percent of the portfolio invested in fixed income securities with low risk, says Torbjörn. AP4 has decided to increase investments in equities, real estate and alternative investments.
- -Within this portfolio, we have increased the proportion of corporate- and mortgage bonds, which gives a slightly higher rate of interest than government bonds. When the Riksbank and the ECB successively introduced negative interest rates, we sold bonds with a negative rate. We have a minimal proportion of bonds with negative returns given our long-term target is 4.5 percent real return.
- -To sell bonds with low interest rates short-term has, however, cost money because the interest rate on bonds with short maturities has fallen further. Another strategy has been to sell bonds in markets with negative interest rates and buy in markets with higher interest rates, says Bengt. This works provided that the cost of protecting the investment against adverse currency movements are not too high and that the interest rate differential between the two countries lasts.
- -Moreover, we have shortened the fixed income portfolio's duration; that is, we increased the proportion of short-term bonds in the portfolio. It slightly reduces the risk of AP4 losing capital when interest rates increase to more normal levels.

#### What happens in the future?

- -The most important question is when, and how, monetary policies will normalize. Since a bond falls in value when interest rates go up, we would not want to invest in bonds when interest rates start to rise again.
- -Another important issue is how other asset classes, such as equities and real estate, will react to rising interest rates, concludes Bengt. If interest rates increase slowly while economic growth strengthens, the normalization of economies is likely to go smoothly with retained values of equities and real estate. However, if interest rates increase quickly, there is a risk that asset prices fall and growth slows. It would be a risky and undesirable development. Sweden has had both soaring property prices and increased debt. Our economy is therefore vulnerable to falling housing prices.

## Real estate and Alternative assets

The portfolio mainly consists of directly owned real estate, and alternative assets primarily consist of unlisted investments.

#### Real estate

The property portfolio, including a mandate focusing on Swedish listed real estate companies, amounted to SEK 28.9 (22.7) billion at year end, representing 8.6 (7.3) percent of AP4's assets. The return for the year amounted to 25.3 (32.2) percent, which corresponds to a positive contribution of SEK 5.8 (5.5) billion. Real estate made a positive active return contribution of 1.2 (1.8) percentage points above the index. This corresponded to SEK 3.5 (5.2) billion.

#### Directly owned real estate

AP4 has chosen to primarily own real estate companies directly, because it is deemed cost-effective, transparent, and it increases the potential for a good return. At the end of the year, approximately three quarters of AP4's real estate portfolio consisted of the holdings in the directly owned real estate companies Vasakronan and Rikshem.

The real estate company **Vasakronan** represents just under half of AP4's real estate portfolio. Vasakronan is owned jointly by the First, Second and Third Swedish National Pension Funds, with each owning 25 percent. Vasakronan manages commercial properties in Sweden valued at more than SEK 115 billion, making it Sweden's largest real estate owner. The total return on Vasakronan's real estate portfolio remained strong in 2016.

Vasakronan integrates sustainability aspects in its business operations and the company has been awarded the highest rating - Green Star - by Global Real Estate Sustainability Benchmark, GRESB, which analyses sustainability achievements in real estate globally. During the year, Vasakronan increased the outstanding volume of green bonds by SEK 2,050 (871) million.

Photo: Växthuset, Stockholm, Vasakronan

The real estate company **Rikshem** represents a quarter of AP4's real estate portfolio and is half-owned by AP4 and AMF. At year end, the market value of Rikshem's properties amounted to approximately SEK 38 billion. The portfolio is concentrated to housing and so-called societal properties with long leases where the tenant is often a municipality. The total return on Rikshem's real estate portfolio remained good during 2016. During the year Rikshem issued green bonds for SEK 750 (800) million.

In the spring of 2016, the vice CEO of Rikshem left the company, and shortly thereafter the CEO and chairman resigned. AP4 and AMF, the two equal owners of the company, led the process of appointing a new Chairman, as well as a few new board members. The owners ensured that Rikshem conducted a review and produced an action plan for improvements in identified areas of policies and procedures. Since early Autumn, Rikshem has a new board and a new CEO.

### Alternative assets

Investments in Alternative Assets consist primarily of private equity funds and illiquid fixed-income securities.

AP4's exposure to alternative assets at year-end amounted to 2.3 (2.6) percent of assets. The market value of alternative assets amounted to SEK 7.8 (8.2) billion at year-end. All alternative assets are managed externally and returned a combined 3.4 (11.3) percent.

## Maximum 5 percent according to the law

According to the law, AP4 may invest a maximum of five percent of the assets in unlisted securities. These investments must be made indirectly via risk capital companies or similar.

# Sustainability creates high returns over time

Sustainability affects us and our world. To include sustainability when assessing investments is essential for successful long-term management. AP4 has two focus areas - Sustainability and Corporate Governance.

The following pages provide a summary of elements of AP4's sustainability efforts. A more detailed presentation is available in AP4's Sustainability and Corporate Governance Report 2015/2016 and at www.ap4.se.

For many years AP4 has focused on the integration of sustainability in the daily management of the assets – this work is constantly evolving and can always be improved.

## Sustainability and Corporate Governance in focus

AP4's two focus areas are Sustainability and Corporate Governance. These two areas have a financial impact on AP4's investments and are essential for the potential to generate high returns and contribute to safeguarding pensions.

## Ownership initiatives in collaboration

AP4 participates in global partnerships and ownership initiatives across a range of areas to support multiple global sustainability goals.

Initiatives include, among others: urging companies to refrain from negative climate lobbying; calls on stock exchanges globally to apply the guidelines for sustainability reporting; support of initiatives requiring oil companies to work to reduce the negative environmental impact of their activities; and initiatives relating to, among others, human rights.

### AP Funds' Ethical Council

The First - Fourth AP Funds cooperate through the joint Ethical Council to influence companies to make sustainability improvements. The ongoing work includes: preventive and reactive dialogues with foreign companies – approximately 250-300 dialogues yearly; sector projects; international collaborations; and initiatives.

The dialogues encompass companies' management of difficult operational issues such as corruption, human rights, labour rights, health and safety, pollution and biodiversity. In addition, the Ethical Council leads projects in areas such as cocoa, palm oil, and anti-corruption. Every year the Ethical Council publishes an annual report.

## General goals - sustainability

AP4 should:

## 1 Increase the proportion of low-carbon strategies to reduce climate risk in the assets

Since 2012, AP4 has established a global low-carbon strategies platform to reduce climate risk in the assets. AP4 currently has, as part of the Global Equity portfolio, three internally and three externally managed low-carbon strategies. These portfolios account for 24 percent of AP4's global equity investments.

The goal is to further reduce the climate risk in the assets through increased investment volumes, together with new and effective strategies that strengthen companies' incentives to reduce their carbon footprint.

## Measure and disclose AP4's carbon footprint in the listed equity holdings

AP4's carbon footprint for the listed share-holdings, from 2012 and onwards, are published in the report on page 46 and on www.ap4.se.



## 3 Identify how to best measure the carbon footprint of other asset classes

AP4 and the other AP funds have a joint cooperation project to identify how other asset classes can be best measured. The work is ongoing.

### 4 Contribute with more capital to green projects by:

- be active in the issue of green bonds.
- participate in the market of green bonds and make them more attractive to own, which stimulates the asset class to grow.

During the period, AP4 has participated in 16 (13) issues of green bonds at an investment value of SEK 3.2 (4.0) billion. AP4 has also been active on the secondary market.

## 5 Provide knowledge concerning low-carbon strategies and green bonds

The management sets aside time to share their knowledge and experience to other institutional investors about low-carbon strategies and green bonds. During the period, AP4 has on request held some 50 presentations at conferences and other meetings.

# Sustainability- reduces climate risk

To reduce climate risk in the assets, AP4 works to include low carbon strategies in equity investments and investments in green bonds when they meet AP4's requirements for sustainability and returns.

#### Low-carbon investments

The aim of AP4's long-term low-carbon strategies is - with limited risk – to opt out of companies with the greatest and most negative impact on the environment in terms of carbon dioxide. The companies where AP4 invests are regularly evaluated on the level of their emissions and their fossil fuel reserves.

Emissions of carbon dioxide and other greenhouse gases affect the Earth's climate negatively, which over time leads to a rise in average temperatures. AP4 believes that the cost of emissions on the environment is taken into account only to a limited extent in current valuations of public companies. AP4 estimates that this will likely look different in the future.

When transitioning to a climate-neutral society, AP4 estimates that emissions of carbon dioxide and other greenhouse gases will lead to higher costs, and that companies with high emissions and/or fossil fuel reserves will be at a disadvantage and valued and priced differently than they are today. The assets in such companies have a risk of becoming so-called "stranded assets".

## **Stranded assets**

A stranded asset is a financial risk and means that assets in possession become obsolete för any unanticipated reasons.

## 24 percent of the Global Equity portfolio

Total investments in low-carbon strategies amounted to 24 percent (22) of AP4's global equity investments at the end of the year. In 2012, AP4 completed the first investment based on the low-carbon strategies. Since then, AP4 has developed a global platform with varying strategies to reduce climate risk in the assets, while providing a return in line with, or better than, the index.

## Returns in line with the index and carbon emissions halved

The returns for all the low-carbon strategies have developed in line with the corresponding benchmark index, measured from the initial investment in each strategy.

Meanwhile, the level of carbon emissions has been halved compared with the index. The investment period, four years to date, is however too short for an evaluation of these long-term investments.

## Increase the proportion of climate-smart strategies

AP4 continues to work on developing and investing in strategies to reduce climate risk in the Global Equity portfolio.

## AP4 has a global platform with low carbon strategies





Above, Ulf Erlandsson, Senior Manager, Corporate Bonds and Green Bonds at AP4, in a discussion during the conference in Paris, November 2016.

Interview with Ulf Erlandsson, Senior Manager Corporate Bonds and Green Bonds at AP4.

## How have green bonds performed in 2016?

- It's been a very good year green bonds reached new record levels in 2016, with an almost doubling of the issuance volume. There has also been a greater diversity of issuers types, says Ulf.
- For example, during the second half of the year China issued a considerable number of green bonds. They even issued the first green style government bonds at the end of the year.
- Overall, more than USD 715 billion in green bonds has now been issued, Ulf continues, which is of course only about 0.15 percent of the bond market but interest is increasingly growing.

#### Has AP4 been active in the trading of green bonds?

- Yes, during the year AP4 invested SEK 3.2 billion in green bonds.

# Your vision is that the market for green bonds should work just as well as for an ordinary bond. How has this progressed?

-A strength of the green bond market has been that in most ways they have functioned like ordinary bonds, says Ulf. But this changed this year. Green bonds have become more popular with institutional investors, and the number of investors not driven by economics has increased.

"We are convinced that sustainable investments must offer both sustainability and returns that are equal to other investment alternatives to function soundly and grow long-term."

- -These investors want to demonstrate they have invested a certain amount of the assets in green bonds, or they want to say that they have "green" in the balance sheet. Unfortunately, they buy bonds without caring much about the price or if they incur a loss. Their focus is often to have a certain amount of green bonds in the balance sheet, develops Ulf. I think this kind of behavior does the green bond market a disservice.
- Without reasonable profitability requirements, truly sustainable investments that can grow and progress the market for various green projects risk being sidelined.
- This cannot work over time because it is an unhealthy risk and return relationship, says Ulf.

#### To foster the market

- To function long term, we are convinced that all sustainable investments must offer both sustainability and a return that is at least as good as other investment options. In discussions with investors and issuers, AP4 emphasizes the importance of the perspective of sound returns for green bonds.
- -Hopefully the investors that buy green bonds at a loss are only a late cyclical phenomenon in a growing market, says Ulf. No matter where in the cycle we are, AP4 continues to seek high positive total return on our green investments and a positive excess return in line with AP4's other fixed-income portfolios something AP4 has achieved over the past four years.

# Sustainability- tobacco divested

AP4 has resolved not to invest in tobacco stocks. Mounting long-term risks, including increased regulation, is estimated to negatively affect tobacco companies' valuations in the future. AP4 estimates that tobacco companies over time will underperform and long term risk becoming so-called "stranded assets".

## Tobacco costly for society

Awareness of health risks and of the significant social costs that can be related to tobacco

consumption is progressively increasing. This is expected to result in increased regulation for tobacco, leading to poorer performance for the tobacco companies.



Tobacco consumption, active and passive, are harmful to health and may eventually lead to increased risk of disease and premature death for affected individuals. Despite this realization, tobacco is legal in most countries.

## Increase in regulations

In recent years, several countries have introduced increasingly restrictive regulations on how tobacco products may be marketed, sold and consumed. AP4 estimates that market regulations, both in terms of tobacco sales and consumption, will continue to increase. Combined with other business risks linked to the sector - like legal risks such as lawsuits and claims for damages - tobacco companies run the risk that profitability over time will decrease significantly.

AP4 supports the UN's long-term global sustainability goals. AP4 estimates that the long-term risks associated with tobacco consumption counteracts the UN's long-term goal of ensuring health and well-being; a viewpoint that AP4 expect more and more investors will share.

### "Stranded assets"

Tobacco shares have historically generated relatively high returns. However, AP4 estimates that risks have increased and that tobacco companies long-term risk becoming so-called "stranded assets". Altogether, AP4 believes that the risks associated with tobacco companies is not properly priced, but these risks will negatively affect the valuation of the tobacco companies long term. AP4 has therefore resolved not to invest in tobacco companies. "Tobacco company" refers to companies that manufacture tobacco products for smoking (cigarettes, cigars, etc.) and snuff in various forms.

## Historically profitable shares

Historically, tobacco shares have outperformed the equity market in general. Below shows how the tobacco sector, compared with global stock indices, outperformed by a total of more than 900 percent since 2001; in other words, tobacco outperformed the index by about 12 percent in annualized terms.

#### Tobacco shares relative to the world index



Tobacco shares have since midyear 2016 underperformed the global equity index. In mid-2016, AP4 resolved not to invest in tobacco, and so far, the decision has positively contributed to the portfolio's performance. However, the evaluation period, six months to date, is too short for such a long-term decision.

## Corporate governance guides companies to make improvements

The goal is that companies are managed sustainably, responsibly and as effectively as possible. This creates the conditions for the company's success, and delivers long-term sustainable returns. This contributes to safeguarding pensions.

Corporate governance is an explicit part of AP4's strategy to

increase returns.
Areas often covered include a company's strategy, sustainability activitites, board composition, capital structure, compensation and transparency.



Generally, AP4 believes that direct dialogue - preferably face to face - with the companies' board, management team and owners typically works best. To be successful, dialogues are conducted confidentially and not through, for example, media.

### General goals - Corporate governance

AP4's work with corporate governance aims to:

- contribute to good long-term sustainable return
- safeguard the best interests of shareholders and individual companies
- take into account the unique circumstances and need of each individual company
- exercise the rights and obligations of ownership responsibly and sustainably
- promote the development of good practice in the securities market. Well-functioning equity markets are essential for long-term investors to be able to generate high and sustainable returns.

## General goals - Corporate governance

AP4 should:

## **1** Participate in Nomination committees for a good board composition

Requested to participate in 27 Nomination committees during the period of 2015/2016, and accepted all.

#### 2 Interview all or part of the board at board evaluations

The Board's own interviews with the directors is a significant component for the Nomination committee's evaluation. AP4 advocates that the Nomination committee conducts their own interviews to gain a deeper understanding of how well the board works for those Nominating committees where AP4 participates. The Nomination committee's own interviews are an important complement to any written self-assessments the Board has commissioned, or assessments by an external board evaluation.

### 3 Increase diversity on boards in terms of gender balance

In the Nomination committees where AP4 participates it's important to ensure that:

- there's at least one women on the shortlist for the appointment of new directors.
- the Swedish Corporate governance Code's recommendations regarding the proportion of women on boards are met.

In the nomination committees where AP4 participated during the period of 2015/2016, 13 of the 33 newly elected members were women, equivalent to 39 percent.

### 4 Exercise voting rights at Swedish AGM's

AP4 gives priority to companies in which AP4 have large holdings, is a major owner and/or at fundamentally important issues.

During 2016 AP4 voted at 100 general meetings, of which nine were by proxy.

## 5 Exercise voting rights at AGM's of foreign companies

AP4 prioritizes the largest companies in every market, companies where the Ethical Council conducts dialogues and companies where AP4 supports an international initiative.

AP4 voted at 798 international AGM's in USA, Japan, Canada, United Kingdom, Australia, France, Germany, Switzerland, Netherlands, Spain, Italy, Hong Kong, Irland and New Zeeland under 2016.

## 6 Promote initiatives for the establishment of governance and stewardship codes internationally

During the period AP4 submitted comments to the OECD regarding Russia's Corporate Governance Code.

## The United Nations sustainability goals

The United Nations sustainability goals are important to investors as the objectives help to stimulate investment that can contribute to solutions of major global issues and to the requirements of high sustainable returns in the long term.

Climate change, social misfortunes and concerns, water shortages, wars and migrations are all factors that threaten economic stability and growth. The investor community's understanding of the need to include sustainability in investment appraisals is rapidly increasing.

AP4 contributes in various ways through sustainability efforts and investments in achieving the United Nations sustainability goals. Currently, AP4 works with two primary focus areas in the investments - Sustainability and Corporate governance, which are areas that already support the United Nations sustainability goals in different ways.

The goal is to, in the areas where AP4 operates, continue to develop activities that contribute to increased returns for the Swedish pensioner while also contribute to a more sustainable society. AP4 is participating in an international collaboration with other European investors, aiming to define the investments that contribute to the UN's sustainability goals beeing defined.

## AP4 and United Nations sustainability goals

Below are several examples of the United Nation's sustainability goals where AP4 either has investments or works with on a continual basis.



**Goal 3. God health and wellbeing** - AP4 divested tobacco. During the year, AP4 resolved to divest tobacco companies; AP4 believed that the risks associated with tobacco companies is not properly

priced and that tobacco company valuations are too high.

AP4 estimates that tobacco companies over time, partly because of increasingly restrictive regulations on tobacco products worldwide, will be valued differently and therefore underperform the index. Tobacco companies run the risk of eventually becoming known as "stranded assets". This is an assessment that AP4 expect more and more investors will share. Read more on page 22.







































**Goal 5.** Achieve gender equality – AP4 has a long tradition through the nomination process, among others, to promote increased diversity in the boards of listed companies and to increase

the number of women on **the boards** where they are underrepresented. The importance of having procedures and processes in place to contribute to increased gender equality in business was highlighted through ownership dialogues with companies.

AP4 evaluates investment strategies that include gender equality indicators; AP4 has a fund investment where the sustainability focus is gender equality.



**Goal 6. Clean water** – the oceans and freshwater are a global resource, where water may also be a local geographic resource. Access to clean water is vital, which is why AP4 continuously

follows-up on progress and evaluates various sustainability strategies focusing on water.



**Goal 8. Good working conditions and economic growth** – to promote macroeconomic stability
and a good investment environment, employment
and decent work are key factors for sustainable

development. AP4 participates in international governance initiatives and, including through the AP Funds' Ethical Council, conducts dialogues with companies to promote decent work, protect the rights of workers, promote a safe and secure working environment, combat forced labor, child labor, modern slavery and human trafficking.



**Goal 10. Reducing inequality** – to address inequalities between individuals and groups based on sex, age, ethnicity, and economic and social status. AP4 has an investment fund with a

focus on children's rights.



## Goal 11. Sustainable cities and communities –

cities and settlements should be inclusive, secure, resilient and sustainable. Cities are often at the forefront of development and are a hub

for innovation and new ideas. The rapid and large migration to cities poses new requirements that need to be addressed in an ecologically, economically and socially sustainable manner. AP4 owns 25 percent of **Vasakronan**, Sweden's largest real estate company and the company is an essential part of AP4 's total property holdings.

Vasakronan has worked for a long time with sustainability in its operations. The company has been awarded the highest rating - Green Star - the Global Real Estate Sustainability Benchmark, GRESB, which analyzes sustainability in real estate globally.



## Goal 12. Sustainable consumption and production

- AP4 understands the importance of increasing awareness of the circular economy and the need for sustainable consumption of, among others,

raw materials; this includes the need to plan for the reuse and reduction of waste prior to production start. This issue is emphasized through **ownership dialogues** that AP4 conducts with companies.



## Goal 13. Fighting climate change -

AP4 has worked to reduce climate risk in the assets over many years, where approximately 24 percent of AP4's global equity portfolio is

invested in **low carbon strategies**. AP4 also invests in **green bonds** that contribute to the financing of various sustainable projects.

AP4 is one of four founders of the **Portfolio Decarbonization Coalition**, PDC, together with the UN, among others. PDC is a coalition of investors and other stakeholders who urge investors globally to measure, publish and reduce their carbon footprint. PDC's goal is to make it easier for investors to quickly and easily streamline the carbon footprint in their portfolios and to develop "best practices" to achieve results. The PDC advocates transparency and the exchange of knowledge.

## 17 global Sustainable Development Goals (SDG)

The United Nations 17 SDGs are designed to, among other things, solve the climate crisis, eradicate extreme poverty and reduce inequalities and injustices in the world. To achieve these ambitious goals, to be reached by 2030, requires that everyone works together - government, civil society and business.

The 17 global SDGs have been divided into 169 sub-goals where each sub-goal is measured using various indicators.

Together, the Swedish AP Funds have developed several indicators by which the AP funds report their **carbon footprint**. Measuring the footprint is important because things that are measured increase the likelihood that they are also managed. The AP Funds coordination of indicators has attracted positive interest and attention in Sweden and internationally.



During the reporting period AP4 has also taken part in several owner initiatives, which support multiple global sustainability goals. Initiatives

include, among others: urging companies to refrain from negative climate lobbying; calls on stock exchanges globally to apply the guidelines for sustainability reporting; support of initiatives requiring oil companies to work to reduce the negative environmental impact of their activities; and initiatives relating to, among other, human rights.

## Investments that contribute to the UN's SDGs

During 2016, AP4 participated in an international collaboration with eight other global investors and stated the intention to invest in accordance with the UN's 17 SDGs.

The work is now underway to define the type of investments that are deemed to promote the UN's SDGs, in other words, **Sustainable Development Investments** (SDI's). SDI's, like other investments, should also meet expected return requirements.

Other institutional investors that are committed to promoting the goals are the First, Second and Third AP-Funds, PGGM, Fiduciary Management MN, APG, Actiam and Kempen. The cooperation will continue during 2017.

## **Awards**

AP4's management and sustainability work as well as the reporting get positive attention in several different contexts, both in Sweden and internationally. During 2016 AP4 received several awards in addition to an award for the AP Fund's Ethical Council.

Asset Owners Disclosure Project (AODP) Global Climate 500

ASSET OWNERS OISCLOSURE PROJECT

AODP awarded AP4 the highest rating of AAA for the management of climate risks in investments. In addition, AP4 ranked 3rd of 500 global institutional investors.

Sweden's most influential persons regarding the environment



Aktuell Hållbarhet (formerly MiljöAktuellt) ranks AP4's CEO until 30 June 2016, as number ten of Sweden's most influential environmental people 2016. Aktuell Hållbarhet annually ranks the most influential people regarding the environment in order to highlight role models and persons who determine the environmental and sustainability agenda and who drive development in a more sustainable direction.

The ranking is awarded based on the following:

"No company can be successful long term if sustainability is not high on the agenda."

These succinct words come from the Fourth Swedish National Pension Fund's CEO Mats Andersson. In 2015 AP4 was one of four promoters of the PDC, a coalition that ahead of the climate meeting in Paris aimed to pull together \$100 billion in pension capital and allocate them to climate-smart investments. The goal was achieved by a wide margin where four funds became 25 and capital has reached \$3 200 billion.

Sweden's most influential persons regarding the environment



Aktuell Hållbarhet also ranks the AP Funds' Ethical Council Secretary General on its list of Sweden's most influential environmental people.

The ranking is awarded based on the following:

"The Secretary General of the AP Funds' Ethical Council sees clear links between sustainability and returns. Through a long-term perspective and focused efforts the AP Fund's Ethical Council contributes in influencing companies worldwide to work more sustainably. Since environmental analyst John Howchin became Secretary General of the AP Funds Ethical Council, the AP Funds have strengthened their efforts to enforce environmental and ethical issues in the foreign companies whose shares they own."

## Chief Investment Officer (CIO) Lifetime Achievement Award



AP4's CEO, until 30 June 2016, Mats Andersson was awarded CIO's Lifetime Achievement Award. CIO highlights CEO Mats Andersson's leadership and contribution internationally to sustainable investments and climate change projects.

## 2° Invest Award – the International Award on Investor Climate-Related Disclosures



Tobias Fransson, Head of Alternative Investments at AP4, at the award cermony for the 2° Invest Award i Paris.

The French Ministry of the Environment, the Treasury and 2° Investing Initiative assigned AP4 a special mention in the presentation of this year's 2° Invest Award.

#### The motivation was:

"AP4's 2015 report presents a developed approach targeting the integration of climate-related policies at all stages of the investment chain.

Back in 2014 as a founding member of the Portfolio Decarbonization Coalition, the fund developed a clear decarbonization strategy to be applied to an entire asset class.

The presentation of this initiative in the report highlighted its innovative management of climate-related risks."

#### IPF Awards 2016 – five nominations

AP4 received five different nominations to the IPE Awards.

- · Long-term Investment Strategy
- Best Pension Fund of the Year
- Best Pension Fund Sweden
- Sovereign Fund
- Climate Related Risk Management

## IPE European 2016 Awards 2016 – Long-term Investment Strategy

The motivation was:

"Demonstrates a real appreciation of what longterm investing is about.

Clear, simple and strong investment philosophy and strategy based on:

- High equity content (60%)
- Long-term investment horizon (40 year) allowing for annual volatility
- Priority given to sustainability (Corporate governance and climate change)
- Very low operating cost (6 bp)
- This is validated by the excellent average annual return achieved over the last 10 years (6,8%)

Strong real returns, managing short versus longterm risk profile, harvesting liquidity premiums.

Impressive focus on long-term strategy. Excellent long-term results. To maintain a return of over 9,7% over 5 years is an excellent performance."



Niklas Ekvall, CEO AP4, received the award for Long-term Investment Strategy at the award cermony in Berlin.

# High quality at low cost

A cost-effective management increases the likelihood of achieving the long-term return target. AP4's long-term goal is to create maximum sustainable returns after expenses. High quality at low cost is a guiding principle for AP4.

0.10%

in management costs

### Low and competitive costs

The management cost, including and excluding commission expenses, is in domestic as well as international comparisons low and very competitive. In 2016, AP4 conducted an independent survey of the operation's cost efficiency. Cost Effectiveness Measurement Inc. (CEM) developed the methodology used to measure and compare, from an international perspective, the cost effectiveness of pension funds.

The independent measurement takes into account several parameters such as the proportion of external management, active management, asset selection and allocation of the asset class and fund size. A reference for the evaluation of AP4's cost effectiveness was obtained through a compilation of 18 global pension funds with a size corresponding to AP4 and domiciled in the US, Canada, the Netherlands, Finland, the UK, Australia and New Zealand.

The results exhibited AP4's high level of cost efficiency - with costs that were 59 percent lower compared with the median of the peer group pension funds. Even after adjusting for asset allocation and fund size, AP4's costs were 40 percent lower than the median for the peer group. The main reason is that AP4 pays less for both the external and the internal management.

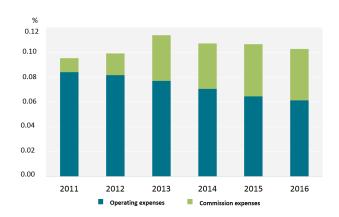
### Good risk diversification

Good risk diversification is required to achieve high sustainable returns, which is created by investing in different asset classes and investment strategies, among other things. The cost of these varies greatly, partly due to the selection of asset classes, management structure, policies and the degree of active management, investment complexity and liquidity.

#### Costs 0.10 percent of the capital

AP4's overall management costs amounted to 0.10 (0.11) percent, measured as a percentage of average fund capital. Management costs consist of operating expenses and commission costs. Commission costs consist mainly of fees to external managers and custodian costs.

## Low management costs over time



## Operating expenses ratio 0.06 percent

AP4's operating expenses ratio, measured as operating expenses as a percentage of average fund capital, was a low 0.06 (0.06) percent. Operating expenses consist primarily of personnel costs, IT costs (which include Information, analytical, trading and control systems) and costs for premises.

AP4's operating expense ratio during the past five years decreased by 0.02 percentage points.

However, since 2011, in absolute value, operating expenses increased by SEK 16 million, corresponding to an annual growth rate of 1.7 percent. During the same period, AP4's assets under management increased in value by more than SEK 100 billion to SEK 334 billion. This corresponds to an annual rate of ten percent of the assets managed.

## Internal management

AP4 strives to internally manage assets when it is deemed cost-effective – in other words, AP4 can generate equal or higher returns for the same or lower cost than externally managed assets provided that there are suitable resources, expertise and experience internally at AP4.

A larger proportion of internally managed investments partially leads to increased operating costs because some costs are related to the volume of assets under management. Such costs relate to, among others, certain IT systems and index expenses and staff costs to manage increased transaction volumes. This increase in operating cost is offset by reduced commissions fees for external management.

The goal is to sustain cost effective operations, which over time contributes to the objective of maximum sustainable returns after expenses.

## Legal requirements - procuring external management

AP4 has a legal requirement that at least ten percent of the assets are managed externally, and on average about 19 percent of the assets have been externally managed over the past five years. These externally managed assets include equity funds as well as customized mandates, so-called discretionary management. AP4's investments in private equity funds are not included when calculating the statutory requirements.

## "Win - win" for successful external management

AP4 pays a management fee for external management of, for example, listed shares. This is typically in relation to the total capital managed. These external management fees are recognized under Commission expenses in the Income Statement.

AP4 benefits when externally managed assets have a positive value appreciation. However, it also means, that in monetary terms, AP4 pays more in commission fees given the correlation of external management fees to the total assets under external management. Therefore, commission-fees paid to an external manager increase when the assets managed increase in value, while fees decrease if the assets managed decrease in value.

AP4 strives to negotiate a low rate as possible for the selected management strategy for an assessed maximum risk-adjusted return. The lowest absolute cost is not always an accurate measure. As previously mentioned, costs are controlled to some extent through the selection of asset classes and management strategy. The goal is to achieve a high risk-adjusted return after expenses.

## Commission expenses increased with capital growth

AP4's commission cost ratio, in other words external management costs, in relation to the managed capital is 0.04 (0.04) percent, which is low relative to comparable funds internationally and nationally.

AP4's capital has increased in value by over SEK 100 billion over the past five years, equivalent to an annual increase of ten percent. Commission expenses are directly related to total value of externally managed assets, which have, over the same period, increased by over 20 percent per year. Commission expenses are therefore an increasing share of AP4's total management costs.

The analysis of AP4's external management costs in absolute numbers SEK, rather than as a percentage of fund assets, shows that commissions fees increased from SEK 24 million in 2011 to SEK 132 million in 2016. This represents an annual increase of 40.6 percent over the period. The increase is mainly due to value growth of the externally managed assets and conveys that a greater degree of active external management costs more.

## Fees for external management

The level of commission fees differs depending on the external management procured. This is due in part to asset classes, markets, strategy and the degree of active management. Costs vary depending on the historical success of the external managers or whether they offer a relatively unique management; it can also depend on AP4's requirements of the management and their service. In negotiations with external managers it is an advantage to be a long-term and large manager, like AP4.

The evaluation of external management includes an assessment of the expected risk-adjusted returns after expenses and the risk diversification the external mandate can contribute to AP4's total asset portfolio.

#### Transaction costs have decreased

Securities transaction costs for AP4's internal management, such as brokerage fees, have increased at a lower rate than the value growth of the assets. Securities transaction costs are therefore only a minor part of commission fees, while the number of transactions has increased. This is partly due to electronic securities trading and that competition has forced a downward pressure on brokerage fees.

The securities transaction costs for the internal management are reported under Custodian fees.



# Risk management

A key component of AP4's successful asset management is a balanced active risk based on an established risk level.

## Risk management in three steps

AP4 must take risks to achieve the intended return target; therefore, sound risk management is crucial to successful asset management. It must be possible to forecast, and subsequently control, risks ahead of an investment.

Risk management can be divided into three steps:

- 1. Risk management
- 2. On-going risk management
- 3. Follow-up and control

## Step 1. Risk management – framework for risk tolerance

The Board has the overall responsibility for AP4's activities and annually adopts an investment policy and a risk management plan for AP4's operations; this, together with the law (2000: 192) regarding the Swedish National Pension Funds (AP Funds), forms the governing framework for AP4's risk tolerance.

To manage the various aspects of risk management, the Board established a Risk Committee and an Audit Committee with three members each. The task of the Risk Committee is to further enhance communication and understanding of the business's financial risks. The Audit Committee has the task of monitoring the external financial reporting and the effectiveness of AP4's internal controls. The role includes overseeing the work of the risk management relative to operational risks and the follow-up of compliance.

AP4's risk and investment strategy has been designed in accordance with the overall objective to maximize share-holder value over time, and thereby contribute to the pension system's financial strength.

The investment policy includes investment strategies through the Board of Directors resolved Normal portfolio (benchmark), which takes its starting point from the AP4 ALM process (Asset Liability Management). The policy stipulates, among other things, AP4's long-term return target, risk profile and risk mandates for the Strategic- and Tactical management and constitutes a general framework for operations.

The risk management plan describes the division of responsibility and authority for the management operations; the principal operational risks; and means to control and follow-up of risks. The main risks are financial and operational risks. A more detailed description of the risks is provided in Note 20.

### Step 2. On-going risk management

AP4's daily risk management and control is decentralized from the organizations operational functions. It follows the principle of three lines of defense. This principle distinguishes between the functions that own the risks (first line of defense), functions for monitoring, control and compliance (second line) and functions for independent review (third line).

As part of the first line of defense, all relevant units have a responsibility for risk management and control within the management operations. This includes every management unit within investment operations in addition to business support functions, such as Back office, Finance and Legal.

The **second line of defense** consist of the Performance, Risk and Control unit (ARK) and the Compliance function. ARK and Compliance are two steps away from the management operations and are independent units, each reporting directly to the CEO and the Board.

## Financial and operational risks

On-going risk management is divided into financial risks and operational risks.

Financial risks consist primarily of market, credit and liquidity

The CEO allocates financial risks to the various management units based on the Board of Directors risk mandate. Managers are responsible for the risk management within their respective mandate. Within the mandate, risk management occurs with a calculated risk-taking, which can have both positive and negative outcomes.

Financial risks are based on the Board's resolution regarding the Normal portfolio's asset allocation. In active management, the scope for risk-taking is limited based on the established risk mandates for the Strategic management in the medium term (3-15 years) and the Tactical management in the short term (up to 3 years).

Equity risk forecasts are used, which are split by management area, instrument, risk factor and more, to support AP4's continuous work in optimizing risk-taking. AP4 analyzes and plans strategic risk-taking with the help of stress tests and different scenarios.

AP4's **operational risks** are managed through an established process and methodology common to all funds. There should be key controls for material operational risks that, as best possible, reduce the likelihood of risks materializing, or that mitigate the consequences when adverse events do occur. All managers and employees should be aware of the risks and the key controls as part of their daily work, and should conduct themselves in such a way that the business, assets and the reputation of AP4 are maintained.

## Step 3. Follow-up and control

ARK is responsible for the risk processes and development of methods for risk analysis and control; it provides methods for risk identification, risk quantification, risk analysis and reporting of both financial and operational risks. In addition, ARK has the task of verifying that the statutory investment rules, investment policy, risk management plan and that the CEO's decisions are applied within operations.

ARK's work includes the careful measurement and analysis - together with the daily reporting - of return and risk, both in absolute terms and relative to benchmarks, and for the reporting of any breaches of applicable regulations.

ARK is divided into three functions: return analysis, risk analysis and risk control.

The return analysis function is responsible for valuation policies of all instruments and for the daily analysis, control and reporting outcomes of return, risk and risk-adjusted returns. AP4's three investment horizons, including each mandate's investment process, are monitored in both absolute terms and relative to the benchmark. The function also monitors AP4's "traffic lights" on the Strategic and Tactical levels.

The **risk analysis function** is responsible for analysis, control and reporting of predominately market risks. Market risks are defined partly as risks relative to the benchmark index, active risk in the short and medium term, and partly in absolute terms as contributions to the overall portfolio risk.

Market risks are divided into AP4's three investment horizons (up to three years, 3-15 years and 40 years) and are analyzed using risk contribution, stress testing and scenario analysis based on each mandate's investment process.

The risk analysis includes daily monitoring of risk and return of the Tactical management and a monthly follow-up of the Strategic management. In this manner, AP4 has access to the forecasts of the aggregate risks in the investments, both in absolute terms and relative to the benchmark. In connection with new Strategic management investments, a stress test analysis is conducted using historical scenarios to assess the risk contribution to the portfolio.



**Risk Control** is responsible for monitoring and controlling financial risks, primarily credit and liquidity risks. The risk control function is also responsible for monitoring the operational risks in investments and ensuring that the rules regarding operational risk are complied with.

Operational risks within AP4 are managed through an established process and methodology common to the funds. This includes process mapping, identification and evaluation of risks and implementation for all mapped processes at least annually. There should be key controls for material risks that, as best possible, reduce the likelihood of risks materializing, or that mitigate the consequences when adverse events do occur. In the process of valuing risks, the key controls should quality assure to ascertain they provide the required functionality and effectiveness.

Within risk management, it is especially important to evaluate change and its effects on the business' operational risks.

Operational risks are evaluated specifically in connection with the implementation of new products, systems changes and organizational changes.

To minimize operational risks, a clear division of responsibilities and authority should be documented through written instructions. Prevailing processes and procedures must reflect a sound internal control, and must be documented through the relevant instructions. The so-called four-eyes principle is applied consistently.

## **Compliance function**

The Compliance function oversees the operations compliance with laws, regulations and other rules, policies, instructions and internal rules, including ethical guidelines. This responsibility includes supporting the operations regarding regulatory compliance issues and analysis of business compliance risks.

## Portfolio risk 2016

## Portfolio risks decreased during 2016

AP4 has a high equity exposure which is necessary, based on targets, to over time generate a real return of 4.5 percent in annualized terms; these are publicly traded liquid shares invested globally. During the past year, the volatility in the Global equity portfolio declined, while the Swedish equity portfolio's volatility increased. Overall, however, the portfolio risk of AP4's liquid assets, as measured by a twelve-month historical standard deviation, decreased to 7.8 (9.4) percent at year-end.

## Volatility of liquid assets



The graph above shows the liquid asset's market risk measured by the twelve-month historical standard deviation.

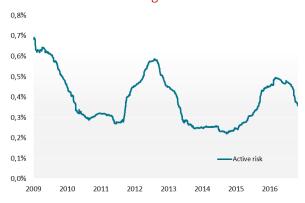
Changes in market movements as a measure of risk are utilized, but this could lead to errors given the Fund's investment horizon is so long-term. For this reason, the Fund works with three different investment horizons where we take into account developments in the near term without losing sight of the long-term target.

The legal requirement that stipulates that at least 30 percent of the assets are invested in fixed income securities with a low credit- and liquidity risks are obvious risks that may hinder the fund in achieving the return goal over time. With an average interest rate at near zero percent, the legal requirement forces the Fund to seek alternatives that can compensate for the low interest returns.

#### Reduced active risk

The active risk for AP4's Tactical management, as measured by the twelve-month history, declined during the year and amounted to 0.3 (0.5) percent. The reason was primarily a lower risk utilization in the management of fixed-income securities. The Strategic management's active risk utilization remained unchanged at 2.7 (2.7) percent.

## Active risk Tactical management



#### Interest rate risk

During the past year, interest rate risk, measured by the 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 during the year between 19 and 29 percent. AP4 had the largest currency exposure to the US dollar, which during the year strengthened considerably against the Swedish krona.

## Currency exposure, Total Portfolio



## **Exposure to states**

AP4's exposure to countries with a rating below AAA in the euro zone declined during the year.

Exposure to sovereign states within the Eurozone with a rating below AAA, 2016-12-31.

Country	2016-12-31	2015-12-31
UK <sup>1</sup>	6 469	7 103
France	3 686	1 513
Belgium	866	520
Austria	407	331
Finland	288	264
Italy	-	3 486
Total	11 716	13 217

<sup>&</sup>lt;sup>1</sup> The UK is not included in the Eurozone, but has nevertheless been included in the compilation.

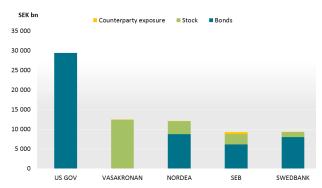
### Exposure to issuers

AP4 has a large exposure to the banking- and financial sector. The 15 largest holdings represented a total exposure of SEK 50 (46) billion, of which SEK 39 (34) billion related to exposure to the Swedish banking- and financial sector.

AP4's five largest issuers represented an aggregated exposure of nearly SEK 72 (63) billion.



Total exposure to the five largest issuer groups

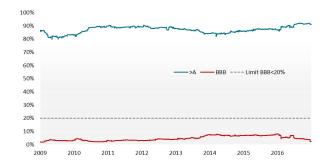


The graph above shows exposure in SEK, billion per issuer at December 31, 2016.

## Credit risk

AP4's fixed income holdings in the fixed income portfolio consists primarily of high quality government and corporate bonds with a rating of AA or better. The proportion of BBB-rated bonds, which is the lowest rating level in the fixed income portfolio, averaged five percent.

## Fixed income holdings in the fixed income portfolio



The graph above shows the breakdown between listed AAA and BBB rated bonds including internal limit levels.

## Transparent, audited and evaluated

As a Swedish state AP Fund, AP4 has many stakeholders - everything from the individual Swedish citizen, in other words current and future pensioners, to Parliament that establishes and enacts the laws on National Pension Funds.

## Audited and transparent

Transparency is a key word for AP4, that endeavors to be transparent in its reporting and communication to the extent possible without it being detrimental to operations.

The AP-Fund's operations, and the audit of the same, are partly regulated by law.

- External auditors review the operations and its accounts annually.
- Each year the Ministry of Finance appoints external consultants to review and evaluate the operations including various specialist areas. The audit and evaluation is a public report which is presented to Parliament each year.
- The government appoints the AP Funds' boards, and in accordance with the above evaluates their work; as such the government is a significant stakeholder regarding the focus of the AP Funds' operations.

In addition, an AP Fund is a natural topic for probing and judging by the **media**, various **NGOs** and **interest groups**. Other important stakeholders are AP4's **employees**, whose commitment and skills are a critical success factor for managing the fund's capital; **Swedish and foreign companies** AP4 owns shares in, has claims against and/or suppliers of among other things financial services; other **institutional investors** in Sweden and globally that AP4 collaborates with and/or competes with.



View of the eastern and western parts of the Swedish parliament. Photo: Melker Dahlstrand/Riksdagsförvaltningen.

### The government's annual evaluation

AP funds are reviewed annually by the auditors and by the government. The government's separate audit is compiled in a report submitted to the parliament.

## Positive government evaluation in 2016

"It is gratifying that the AP funds have continued to contribute positively to the income pension system, while at the same time they have accelerated development towards a sustainable financial market, says Finance Minister Per Bolund."...

... in a press release when the government's annual review of the AP Fund's operations was presented during the Spring

The evaluation shows that the AP Funds have positively contributed to the pension system's long-term financing both in 2015 and since its inception in 2001. At year-end 2015, the AP Funds accounted for 14 percent of the income pension system's assets, which is four percent higher than when the current AP Fund's system was introduced.

The AP funds have in recent years, according to the evaluation, developed the work in risk management, control and compliance considerably. The Government believes that it is still important area of continuous development as well as among other things, deepen cooperation between the AP Funds, where possible.

The government deems it important to achieve long-term returns and good risk management, where sustainability aspects are integrated into the AP Funds operations, including that the AP Funds influence portfolio companies to act sustainably.

Source: Government evaluation published Spring 2016, Skr. 2015/16:130

# Stakeholder engagement

AP4 meets regularly with various stakeholders in individual meetings and exchanges information on its activities and management with views and opinions about AP4's work.

## Stakeholder engagement

AP4 provides information on its business activities at individual meetings, group meetings and at presentations and conferences. On such occasions views and opinions about AP4's work is received, noted and addressed. These meetings allow AP4 to better understand stakeholder expectations. In turn, stakeholders gain a better understanding of AP4's work, including the framework which AP4 works within, and the risks and opportunities that can be connected to the operations both short- and long-term.

### Materiality review

AP4 aims to conduct periodic materiality revisions to ensure that AP4's work, reporting and communications on sustainability initiatives are in line with stakeholder expectations and perceptions concerning what is important.

In 2015, AP4 conducted a materiality review, and a new review is planned for 2017. The 2015 materiality review is found below.

#### **Process for materiality review 2015**

During the meetings, AP4 and its stakeholders discussed global trends and challenges within sustainability for the financial sector, financial owners in general and for AP4 in particular. In addition, several stakeholders, both external and internal (employees), responded to a survey from AP4. A selection of these survey responses was complemented with external and internal in-depth follow-up interviews so that AP4 could gain a better understanding of the priorities and expectations.

### Discussions regarding expectations and challenges

The materiality review and discussions with stakeholders yielded several valuable additional views regarding, above all, the ongoing work on sustainability and corporate governance. The review confirmed that AP4's current sustainability efforts and priorities are perceived as clearly communicated. Most of the discussions focused on identifying expectations and areas of value-creation.

Most stakeholders generally expected that sustainability in the broader sense will affect businesses in the future.

Areas that were expected to be important for development were the climate and the environment, and in within these areas carbon/ greenhouse-gas emissions, availability and quality of water, as well as the growth in renewable energy were important.

Further, changes were seen in, and between, different countries' economies ability to achieve high impact for the development of markets and operations, as well as various political influences and policy changes.

Climate and environmental issues were also considered among the major issues impacting the financial markets. Access to clean water, renewable energy and how to manage "stranded assets" and the development of a circular economy were the issues most mentioned. Questions regarding equality, refugee policies, migration, and accordingly, changing consumption patterns were also highlighted as important. In addition, digitalization and data security were considered challenges for the financial industry.

### **Expectations on AP4**

In addition to sustainability efforts in general, considerable emphasis was placed on AP4 as an "owner" to set a good example and to take ownership responsibility, where emphasis was placed to act honestly and to be as transparent and open as possible in our actions. For example, this included that owners, when in contact with companies, should be precise and establish tough but realistic demands.

According to stakeholder expectations, AP4 should continue to work on sustainability issues and continue to deliver strong returns on investment. To meet these expectations, AP4 should continue its current efforts and build on the link between sustainability and financial analysis – the "what and how" analysis of AP4's future investments.

#### Conclusions

The discussions showed that AP4 had succeeded in informing several stakeholders about sustainability efforts. AP4 will work further with the results and lessons-learned from the materiality review, and will take them into account when making strategic choices, reporting and in communications.

## **Employees**

At year-end AP4 had 54 employees. It is important that everyone feels involved in the operations regardless of where in the organization they work.

To succeed as a pension fund, employees must feel engaged, motivated to develop the operations and contribute positively to the functioning of the business as a whole. This has been a prerequisite for AP4 to deliver high returns at low costs over several years.

At year-end 54 (55) people worked at AP4, where of 20 (21) worked in the management organization and 34 (34) worked in business support, control and staff functions.

### **Employees**

Employees are AP4's most important resource. Opportunity for professional development, education and job satisfaction are in focus. To promote long-term good health all employees receive regular health and fitness benefits. AP4 regularly conducts a market salary survey to ensure that salary levels and compensation packages are competitive and reasonable.

See table with different ratios of AP4's employees on the next page and also www.ap4.se for more information.

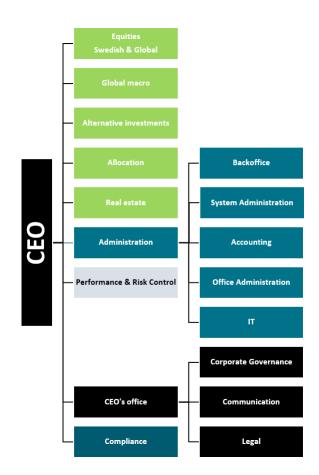
## Personnel and ethics-related policies

AP4's Board yearly adopts a personnel and ethics-related policy based on both statutory regulations and an unwritten code of ethics. The CEO also formulates a number of internal guidelines that are added to the policy each year. The policy and guidelines include rules on public procurement, compensation and benefits, business travel, entertainment, employees' personal trading in securities, insider information and ancillary activities. AP4's policy also includes policies regarding bribery and conflict of interest.

Each employee at AP4 is responsible for personally complying with the rules in the above-mentioned policy and their underlying guidelines, which also state that moral or complex dilemmas should be investigated in consultation with the employee's immediate supervisor. The personnel and ethicsrelated policy, as described above, form part of AP4's introductory training for new employees.

## Organization

Asset Management is organized into six units: Equities (Swedish and global), Global Macro (fixed income, currency and equity indices), Alternative Investments, Allocations and Real Estate. Administration is organized into the following units: Back Office, System Administration, Accounting, Office Administration and IT. Performance and Risk Control manage return- and risk analysis and risk control. Compliance reports directly to the CEO. CEO's office consists of the units Legal, Corporate governance and Communication.



# **Employee survey**

Our employees are AP4's most important resource. Their commitment and expertise are critical success factors for the management of the fund capital. The goal is to create an attractive workplace with opportunities for education, health care, job satisfaction and professional development.

Over several years AP4 has conducted employee surveys in order to capture issues that matter most in order for employees to succeed, feel motivated and continue to develop the business.

The issues captured through the employee survey concerning areas of improvement are managed according to a systematic process. Each unit in the organization will discuss results of the survey and an employee group is formed each year with representatives from the various units. The employee group has the task to develop specific actions for continued improvement in the areas identified in the employee survey.

The 2016 employee survey showed overall good resultats in most areas. Overall, however, the result was slightly lower than previous year. The result of this survey have been reported internally and managed in accordance with AP4's process for improvement.

Key ratios, employees	2016	2015	2014	2013	2012
Number of employees, average	53	55	56	54	51
Women, %	37	38	36	33	29
Men %	63	62	64	67	71
Number of full-time employees, average	52	54	54	52	50
Number of part-time employees, average	1	1	2	2	1
Employees covered by collective agreement, %	98	98	98	98	98
Average age	44	44	44	43	42
0-29 years, number of employee, %	11	7	5	9	10
30-44 years, number of employee, %	34	35	39	43	50
45-59 years, number of employee, %	53	54	52	46	37
60- years, number of employee, %	2	4	4	2	3
Employee turnover, %	11.3	10.9	8,9	1.9	7.8
Number of employees to start during the year	5	5	4	4	2
Number of employees to leave during the year	6	6	5	1	4
Changed position internally during the year	2	2	1	1	2
Sick leave, %	3.3	2.9	0.9	1.3	2.6
Annual working hours accepted for as parental leave	1.5	2.4	3.3	1.8	5.0
Women, %	36	53	39	38	33
Men %	64	47	61	62	67
Number of persons in Management team, average	8	7	5	5	5
Women, %	25	29	40	40	40
Men %	75	71	60	60	60
Number of employees in Management positions, average	6	6	10	10	10
Women, %	50	50	40	40	40
Men %	50	50	60	60	60
Number of employees in Asset Management, average	15	15	16	16	16
Women, %	20	20	19	19	19
Men %	80	80	81	81	81
Number of employees in Business Support, Control and Staff functions	24	27	25	23	20
Women, %	46	48	44	39	30

# Remuneration at AP4

AP4's role as manager of Swedish national pension funds requires that the level of remuneration to the Fund's employees, including the CEO, is reasonable, justifiable and explainable.

AP4 generally strives to ensure that, overall, levels of remuneration are in line with the market and enable the Fund to attract and keep talented employees. However, the Fund shall not be a wage leader.

#### AP4's Board of Directors

AP4's Board of Directors has a responsibility to address remuneration issues in a purposeful, responsible and transparent way. The Board of Directors annually determines the policies governing remuneration and other terms of employment for employees of AP4.

Furthermore, the Board conducts an annual follow-up of how these policies have been applied within AP4 over the preceding year. It also verifies and establishes that government guidelines on terms of employment for Executive management in the AP Funds have been adhered to. With the support of external consultants the Board, as part of this work, regularly compare AP4's remuneration levels for both the executive management group and other employees using salary statistics from relevant and comparable employers in the market.

# The Remuneration Committee

The Remuneration Committee is a Board-appointed body comprising three members of the Board. The Committee's responsibility is to serve in a consultative, monitoring and preparatory role as regards remuneration to the CEO and AP4's executive management group, as well as managers who report directly to the CEO.

The Remuneration Committee prepares important remuneration resolutions and manages other related tasks delegated by the Board. The committee also prepares issues concerning AP4's principles for remuneration and other terms of employment for all employees and is responsible for monitoring the application of these principles. Finally, the Remuneration Committee prepares the assessment of AP4's compliance with government guidelines for the terms of employment for Executive management at the AP Funds.

## The AP Funds' common policy

A common policy for remuneration terms, staff benefits, entertainment and business travel for AP1, AP2, AP3, AP4, AP6 and AP7 was formulated in 2012, and was adopted by AP4's Board. The common overarching policy is supplemented by AP4's more detailed internal staff-related policies and guidelines, including AP4's remuneration policy. The above policies and guidelines are subject to annual review.

### AP4's Remuneration Policy

According to AP4's remuneration policy, total remuneration consists of fixed salary, incentive-based salary, pension and other benefits.

#### Fixed salary

Fixed salaries shall be in line with the market and competitive, but not market leading. Salaries are determined on an individual basis, taking into account the level of responsibility and degree of difficulty of the duties involved, as well as the competency and capacity required for the work of each employee.

### **Incentive-based salary**

The Board of Directors annually approves a plan for incentive-based remuneration for all the Fund's employees. No incentive-based salaries are paid to the CEO, the executive management, Head of Risk Control or the compliance officer. The plan provides for a capped incentive-based salary amounting to no more than two months' salary, conditional on the attainment of goals based on objective criteria that have been established in advance. The goals incorporated into the incentive-based plan shall be balanced between a collective contribution and the individual employee's contribution and responsibility to the overall outcome over a rolling three-year period. Incentivebased remuneration is paid only if the Fund, in the year to which the incentive-based remuneration pertains, reports an absolute profit.

## **Pension**

AP4 complies with the "BTP" plan, in accordance with the relevant collective bargaining agreement (BAO, the Employers' Organization of the Swedish Banking Institutions/ SACO, the Swedish Confederation of Professional Associations), for all employees except for the CEO. Employees hired after April 1, 2008, with a salary exceeding 10 income base amounts, will be eligible for alternative BTP, a pension plan based on defined contributions, in which a premium corresponding to 30% of the salary component exceeding 7.5 income base amounts is paid. Other employees are covered - unless otherwise agreed - by a retirement pension based largely on defined benefits in accordance with the BTP plan.

The CEO is entitled to a pension at the age of 65 years and a pension allocation corresponding to 30% of salary.

# Substitution of salary for pension/increased retirement pension

All employees are entitled to substitute part of their gross salary for pension premium payments in a way that is cost-neutral to the Fund.

#### Other benefits

The aggregated value of other benefits amounts to a limited proportion of the total remuneration paid. Other benefits include health insurance, group insurance and fitness subsidies. AP4 also has four parking spaces that employees can use, which are taxable as a fringe benefit.

#### Notice of termination/Severance payments

Period of notice follows the rules of the collective agreement between BAO and SACO for all employees excluding the CEO and Deputy CEO. The CEO have a mutual notice period of six months. Upon termination, as is called for by AP4, severance pay amounts to a maximum of 18 months' salary for the CEO. In the case of new employment or income from business activity, remuneration paid during the period of notice or severance payment will be reduced by an amount corresponding to the new income.

#### The Board's review 2016

During the year, the Board of Directors commissioned both a salary survey for all employees in accordance with the Discrimination Act as well as an external market comparison of both the management team and other employees, where a comparison has been made to the corresponding services in the financial sector in Sweden working with long-term management of capital.

The completed salary survey, from a gender perspective, concluded that there are no significant differences in pay either regarding equal work, work of equal value or in female-dominated groups.

#### **External market comparison of salaries**

The finalized external market comparison included all of AP4's employees, plus senior management. The market comparison of salaries was prepared with corresponding positions in the Swedish financial sector working with the long-term management of capital.

The objective of the market comparison was to ensure that the Fourth AP Fund's wage levels are in line.

The remuneration policy together with the government guidelines for terms of employment for senior executives of the AP Funds ensures that AP4's compensation levels are reasonable and defendable and not market leading, while at the same time the levels of remuneration should be market conforming and competitive.

The external consultant Willis Towers Watson conducted the comparison, analysis and compilation of the survey for the external market salary, whereby the base was drawn from their annual salaries and benefits survey for the financial sector in Sweden. Each employee's compensation was compared with the corresponding positions of a group in the financial sector in Sweden working with long-term capital management: Alecta, AMF Pension, AFA Insurance, the Second AP Fund, the First AP Fund, Kammarkollegiet, Länsförsäkringar, SEB, the Sixth AP Fund, the Seventh AP Fund, Skandia, Swedbank and the Third AP Fund. These were deemed to compete for staff with similar responsibilities, experience and skills that are required by AP4 to fulfill 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 salaries are competitive, reasonable and defendable without being market leading. It was further found that senior executive benefits fit within the Government's guidelines for terms of employment for senior executives of the AP Funds.

# **Directors Report 2016**

The positive return amounted to ten percent after expenses corresponding to a profit of SEK 31 billion, increasing fund capital to SEK 334 billion.

# Fund capital SEK 334 billion

Fund capital increased by SEK 23.9 (15.2) billion to SEK 333.9 (310.0) billion.

The positive change in fund capital consists of profit for the year of SEK 30.5 (20.1) billion, which is the annual return net of management fees and net of payments to the public pension system.

Changes in fund capital, SEK bn	2016	2015
Fund capital, opening balance	310.0	294.9
Net payments to the pension system	-6.6	-4.9
Profit/Loss for the period	30.5	20.1
Fund capital, closing balance	333.9	310.0

Net payments to the national pension system amounted to SEK 6.6 (4.9) billion, which reduces the Fund's capital by the same amount. Since 2009, when the pension system's net flows became negative, AP4 has cumulatively contributed SEK 37 billion to the pension system.

The burden on the public pension system, with payments of pensions, is high in times of large-scale retirement. During deficit periods in the pension system, capital is taken from the First - Fourth AP Funds - the so-called buffer funds. This deficit is projected to cease around the year 2040.

# Total return ten percent

Listed shares accounted for more than half of the assets at the end of the year. AP4's other assets consisted of fixed income securities, real estate and alternative assets. The overall asset allocation was marginally changed during the year.

#### Cost effective managment

AP4's goal is to generate the highest possible return after expenses, where cost efficiency is a guiding principle. A high sustainable return requires good risk diversification that, among other things, is created through investments in different asset classes and investment strategies. Cost varies greatly depending on the degree of active management, investment complexity, liquidity and more.

At the same time different asset classes and investment strategies give varying risk and return expectations, resulting in a

portfolio with a good expected risk diversification and high long-term returns. Cost is always in focus and alternative ways of working and creating value are evaluated continually.

Management costs, measured as operating expenses as a percentage of average fund capital, amounted to a low 0.06 (0.06) percent.

Management costs including commission costs, such as fees paid to external managers and custodian costs, amounted to 0.10 (0.11) percent, measured as operating expenses as a percentage of average fund capital.

Management costs, including and excluding commission costs, are low and very competitive compared with other pension funds, both in domestic and international comparisons.

Management costs	2016	2015
Operating expenses, SEK m	195	197
Commission expenses, SEK m	132	128
Operating expense ratio, %1	0.06	0.06
Operating expense ratio, % <sup>2</sup>	0.10	0.11

## Returns for three investment horizons

Asset returns can also be described through AP4's management structure based on three investment horizons: up to three years, three to 15 years and 40 years. The Board decides on the composition of the longest of these investment horizons and determines the mandate and goals of the other two. The management structure was implemented 2013 and has therefore been active for four years. The evaluation period is five years, which has not yet been reached. It is AP4's assessment that the management structure provides better conditions for AP4 to take advantage of the Fund's longest mandate.

The management structure has a clear strategic mandate, the Strategic management, which takes advantage of business opportunities with longer investment horizons of between 3-15 years. The Strategic mandate allows AP4 to have a longer investment horizon than the market in general.

# Positive contrubutions from all investment horizons

In 2016 Strategic and Tactical management accounted for SEK 3.2 (14.3) billion of the total result before expenses of SEK 30.9 (20.4) billion.

All investment horizons have generated positive earnings contributions since the introduction of the management structure in 2013. Over the four year period the total profit contribution has amounted to SEK 129.1 billion. The Strategic management has contributed SEK 21.6 billion and the Tactical management has contributed SEK 2.6 billion.

# Normal portfolio – 40 years

The Normal portfolio is a reference portfolio that consists of indices and has a 40-year time horizon. AP4's Board of Directors decides the composition of the Normal portfolio, where all decisions contributed positively to the total portfolio in 2016. Since the new management structure was implemented in 2013, the Normal portfolio has made an overall profit contribution of SEK 104.9 billion, of which equities accounted for SEK 75.1 billion.

Normal portfolio		2016-12-31	201	
Asset class	Weight, %	Foreign exchange exposure, %	Return, %	Return contribu- tion, %
Equities	66.3		7.8	5.5
Government bonds	33.7		3.2	1.3
Currency	0	30.9	2.3	2.3
Total	100.0	30.9	9.1	9.1

### High proportion of listed shares

The decision to hold a high proportion of listed shares longterm delivered the largest positive contribution; at year-end equities amounted to 66.3 (64.2) percent of the Normal portfolio.

The equity portion consists of 89.2 (90.2) percent in developed markets and almost 10.8 (9.8) percent in emerging markets. The decision regarding the share of equities contributed SEK 17.2 (2.4) billion, which represented a return of 7.8 (1.1) percent.

#### Government bonds

At year-end the Normal portfolio's share of government bonds amounted to 33.7 (35.8) percent. The decision regarding the share of government bonds provided a positive contribution of SEK 3.2 (0.1) billion.

#### Open currency exposure

The long-term decision not to hedge all assets denominated in currencies other than the Swedish krona contributed positively. At year end the open currency exposure was 30.9 (28.9) percent and provided a positive contribution of SEK 6.7 (3.6) billion, corresponding to a return of 2.3 (1.2) percent.

# Strategic management, 3-15 years

Strategic management, with an investment horizon of between 3 - 15 years, constitutes 32.9 (30.2) percent of AP4's assets. This is equivalent to SEK 110.0 (93.6) billion.

The Strategic management outperformed the index during the year and provided an overall positive active contribution of 1.0 (4.8) percentage points to AP4's total return. This corresponds to SEK 3.1 (14.1) billion in active profit contribution.

Since its inception 2013, the Strategic management's overall profit contribution has amounted to SEK 21.6 billion, with the largest contributions coming from real estate and Swedish equities in the amount of SEK 12.8 billion and SEK 9.8 billion, respectively.

The evaluation period for the Strategic management is five years and a full evaluation period will be achieved at the end of 2017.

Real estate, together with the decision to keep a large proportion of Swedish equities, provided the largest positive contributions during 2016 with an active contribution to the result of SEK 3.5 (5.2) and SEK 2.5 (6.4) billion, respectively.

		2016
Strategic management, positions	Return contribution, active, %	Active earnings contribution, SEK m
Swedish equities	0.8	2 528
Corporate bonds	-0.0	-31
Sustainability <sup>1</sup>	0.0	134
Real estate	1.2	3 521
Asset class	-0.4	-1 211
Currency	-0.0	-102
Duration	-0.5	-1 385
Other strategic positions	-0.1	-367
Total strategically managed positions	1.0	3 088

<sup>&</sup>lt;sup>1</sup> Sustainability includes a number of sub-portfolios, including low-carbon strategies and strategies with a corporate governance focus.

## **Tactical Management**

Tactical management provided in total an active earnings contribution of SEK 87 (187) million. Over the past eight years when the current management structure was established, the active Tactical management has in total delivered a positive earnings contribution of SEK 7.9 billion.

Tactical management's active return amounted to 0.0 (0.1) percentage points in 2016. Three out of five Tactical management sub-units contributed positively.

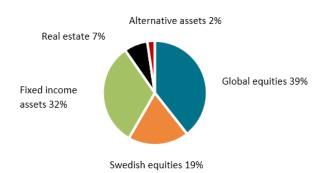
On average for the evaluation period, a rolling three years, the positive active return amounted to 0.3 (0.4) percentage points, which does not reach the target of 0.5 percentage points.

		2016
Tactical management	Active return contribution, %	Active earnings contribution, SEK m
Global equities	-0,2	-592
Swedish equities	0,1	264
Fixed income	0,2	505
Equities index <sup>1</sup>	-0,0	-101
Currency <sup>1</sup>	0,0	11
Total tactically managed assets	0,0	87

#### Asset allocation

Listed shares represented more than half of the assets at year end. The other assets consisted of fixed income assets, real estate and alternative assets. The overall asset allocation during the year changed marginally.

## Equities more than half of assets



The underlying values for derivatives in the passive allocation are allocated to each asset class in the diagram above.

	2016-12-31	2016	
Asset class	Market value, SEK m	Portfolio return, %	Exposure <sup>1</sup> ,
Equities, total	194.8	8.9	58.3
Global equities	131.5	7.3	39.4
Swedish equities	63.2	12.4	18.9
Fixed income assets	107.1	2.0	32.1
Real estate	24.5	25.9	7.3
Alternative assets	7.8	3.4	2.3
Currency	0.0	2.3	0.0
Other <sup>1</sup>	-0.2	-0.2	-0.1
Total investment assets <sup>2</sup>	334.0	10.1	100.0

<sup>&</sup>lt;sup>1</sup> Consists of cash as well as Strategic and Tactical asset allocations <sup>2</sup> Return before total costs. Return after cost amounted to 10.0 percent. Investment assets amounted to 334.0 billion, of which the Fund's assets is 333.9 billion crowns.

### Equities - five consecutive years of positive development

Global and Swedish listed shares accounted for more than half of the assets. At year-end the equity exposure amounted to 58.3 (56.9) percent of assets allocated as follows: 39.4 (38.4) percent global equities and 18.9 (18.5) percent Swedish equities.

The market value of listed shares amounted to SEK 194.8 (175.0) billion.

The world index (MSCI ACWI) performed positively for the fifth year in a row. After a weak start to the year with declining equity markets, the trend in most markets was positive but volatile. Sweden continued its strong performance compared to the world index as it has in four of the past five years.

The return for AP4's global equities and Swedish equities amounted to 7.3 (1.7) percent and 12.4 (14.1) percent respectively.

#### Fixed income assets in a low interest rate environment

AP4 is required by law to have at least 30 percent of assets invested in fixed income securities. At year-end, 32.1 (33.8) percent of assets were invested in fixed income securities.

The market value of fixed income assets amounted to SEK 107.1 (103.8) billion.

Long-term interest rates fell during the year from already low levels in all major markets where AP4 is active. US long-term rates was the exception, which increased slightly after a sharp turnaround towards the end of the year. Return for AP4's fixed-income portfolio amounted to 2.0 (-0.1) percent.

#### Real Estate generates high returns

AP4's real estate portfolio consists primarily of Vasakronan and Rikshem. The property portfolio comprised 7.3 (6.6) percent of AP4's assets at the end of the year.

The market value of the real estate portfolio amounted to SEK 24.5 (20.5) billion.

The value increase for real estate assets has been very good, and the total return amounted to 25.9 (32.1) percent.

#### **Alternative assets**

Alternative assets include private equity funds, high-yield fixed-income and an investment based on absolute returns. At year-end 2.3 (2.6) percent of assets were invested in alternative assets.

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

Alternative assets are externally managed and returned 3.4 (11.3) percent combined.

#### **Currencies contributed positively to earnings**

AP4 hedged a significant proportion of its assets denominated in foreign currencies. Currencies are managed based on a currency policy that determines the open currency exposure in AP4's reference portfolio.

The open foreign currency exposure at year-end was 26.9 (27.0) percent and provided a positive contribution of 2.3 (1.7) percentage points. A continued weakening of the Swedish krona against virtually all currencies, except for the British pound, added to the positive earnings contribution.

#### Other

"Other" includes cash and Tactical and Strategic asset allocations in the form of a so-called overlay mandate, which in total contributed a return of -0.2 (-0.1) percentage points.

# Integration of sustainability

Integrating sustainability is a priority in the ongoing management. AP4 uses several different tools and mandates to integrate sustainability, which in the long term minimizes various risks in the portfolio while also creating business opportunities. Sustainability and corporate governance are two of AP4's focuses areas. The focus areas have been selected because:

- they are considered essential for returns and asset performance,
- AP4's knowledge, commitment and potential to impact is considered to make a difference and affect asset returns positively over the long term.

# Good risk-adjusted return

Risk-adjusted return values (information ratio) above 0.5 for individual years is usually considered a good result. The risk-adjusted return has been good since the inception of the current management organization. The information ratios are generally high for the different management units.

On average the information ratio for the Tactical management amounted to 0.8 (1.3) over the past three years.

Information ratio	3 years (on annual basis)	2016	2015	2014
Global equities	0.2	neg	0.9	1.7
Swedish equities	0.8	1.1	1.8	neg
Fixed income	0.7	1.4	neg	3.2
Equities index <sup>1</sup>	neg	neg	neg	neg
Currency <sup>1</sup>	0.5	0.1	2.3	neg
Total tactically managed assets	0.8	0.1	0.2	2.9

### **Information ratio**

The information ratio is used to measure risk-adjusted return. The measure describes the annual excess return achieved in relation to the active risk taken.

Daily data has been used in the calculation of AP4's risk-adjusted returns. Daily data is a more conservative calculation method as it produces a lower information ratio than if, for example, weekly or monthly data was used.

#### Changes in personnel

The Board of Directors appointed Niklas Ekvall as CEO of AP4 to succeed Mats Andersson, who ended his role as CEO on June 30, 2016; Niklas Ekvall assumed the role of CEO on October 1, 2016. Magnus Eriksson, Deputy CEO, also resigned during the year. Employee turnover was at a normal level during the year, and at year-end the number of employees totalled 54 (55) people.

# Remuneration

For a pension manager of public funds it is obvious that employee remuneration levels must be reasonable, justifiable and definable. AP4 endeavors to ensure that remuneration is in line with the market and enables the Fund to attract and keep skilled staff. AP4 shall not be a wage leader.

The Board bears ultimate responsibility for remuneration matters being dealt with responsibly, sensibly and transparently. Annually, the Board determines principles regarding

remuneration and other employment terms. The Board also ensures compliance with the Government's guidelines regarding terms of employment for senior management. The Board monitors compliance with the remuneration principles with the help of external consultants.

The Board has appointed three of its members to the remuneration committee. The committee's task is to advise the Board and prepare materials regarding compensation for the CEO and Senior Executives. The Remuneration Committee also prepares materials relating to AP4's principles for remuneration and other terms of employment for all employees.

Total remuneration for AP4 employees consists of fixed salary, incentive-based remuneration, pension allocation and other benefits. The CEO, Senior Management, Head of Compliance and Head of Risk Control do not receive incentive-based remuneration.

For other employees, is payable to a maximum of two months salary, when clear and measurable goals have been achieved. Incentive-based remuneration is based on group-oriented quantitative goals and the quantitative contribution of the individual employee measured over a rolling three-year period. Incentive-based remuneration is only payable if AP4's total earnings for the financial year are positive.

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

Read more under the heading Remuneration at AP4 or in Note

# Collaboration between the AP Funds

One of the basic ideas for managing assets in the income pension system was to have multiple AP-funds, which together create diversification. Another reason was that earnings would benefit from the positive competition in terms of performance and cost efficiency. Several AP funds also advocated that a single very large National Pension fund would, only by its size, have negative effects on the functioning of the Swedish capital markets.

Ever since the pension system was reorganized in 2001 there has been close cooperation between the AP funds in different areas. The aim of the collaboration is to achieve transparency and cost-efficiency without limiting the opportunities for competition between the AP funds.

# **Increased collaboration**

During 2016, the CEOs of AP1-AP4 increased focus on cooperation between the funds. The aim is to achieve greater cost efficiency, create synergies and ensure an appropriate

exchange of experiences, knowledge and routines between the organizations. Collaboration has already been established in various forums and will be intensified on a project basis.

Cooperation takes place primarily in the following areas:

- environment and ethics
- communication
- corporate governance
- legal
- · accouting and HR
- administration and IT
- business and risk control

The funds work closely with each other predominately through the AP Funds Ethical Council, a collaborative body formed in 2007 by AP1, AP2, AP3 and AP4. The Ethical Council consists of a representative from each AP Fund and a jointly appointed secretary general. The purpose of the Ethical Council is to jointly pursue positive change with regards to sustainability in foreign companies - proactively and reactively. The latter occurs when a company is linked to violations of international environmental and human rights conventions. Working together, with the combined capital of the AP Funds, increases the possibility of influencing a company compared to individual initiatives. The Ethical Council is also an attractive partner for other international investors with similar environmental and ethical agendas, further increasing possibilities of influence. This cooperation also means that the AP Funds' work is more efficient and cost-effective, for example through more dialogues with companies, international investor initiatives, and conferences at which the Ethical Council is represented.

Since 2015 the AP Funds have coordinated the reporting of their respective carbon footprint.

To cost-effectively vote at general meetings of global equity holdings, AP4 together with the First, Second and Third AP Funds utilize a shared electronic voting platform. Each AP Fund votes independently on behalf of their respective holdings. Another example of cooperation between the First, Second, Third and Fourth AP Funds is the jointly prepared document "AP Funds accounting and valuation principles" intended to ensure that the AP Funds apply common accounting principles, and that the financial statements are therefore comparable. The document is updated regularly and is reviewed annually with the AP Funds auditors.

# Signicant events after the end of the reporting period

AP4's work is proceeding according to plan. There are no significant events to report that have occurred since the end of the year.

# Financial statements and note disclosures

# Five year overview

Key ratios, as per closing date	2016	2015	2014	2013	2012
Fund capital, flows and net profit, SEK bn					
Fund capital	333.9	310.0	294.9	259.7	229.6
Net flows, pension system	-6.6	-4.9	-5.1	-6.9	-3.8
Profit for the period	30.5	20.1	40.2	37.0	23.4
Return, %					
Return, total portfolio before costs	10.1	6.9	15.8	16.5	11.3
Return, total portfolio after costs	10.0	6.8	15.7	16.4	11.2
Return, total portfolio after costs, annualized 5 yrs.	12.0	9.7	10.5	11.6	3.3
Return, total portfolio after costs, annualized 10 yrs.	6.7	6.7	7.6	7.2	7.2
Operating cost ratio % of AuM, annualized					
Operating costs	0.06	0.06	0.07	0.08	0.08
Operating costs and commission fees	0.10	0.11	0.11	0.11	0.10
Risk, %					
Total portfolio ex-post	7.3	8.8	6.0	5.6	5.6
Liquidity portfolio ex-post <sup>1</sup>	7.8	9.4	6.4	6.0	6.0
Liquidity portfolio ex-post, 10 yrs²	9.1	9.3	8.9	8.6	-
Sharpe ratio Total portfolio ex-post	1.5	0.8	2.5	2.8	1.8
Sharpe ration Liquidity portfolio ex-post <sup>3</sup>	1.2	0.6	2.3	2.5	1.7

<sup>&</sup>lt;sup>1</sup> Refers to liquid assets (investment assets excluding real estate, venture capital funds and high yield fixed income). <sup>2</sup> Refers to quarterly date for liquid assets (investment assets excluding real estate, venture capital funds and high yield fixed income).

#### Cont Five year overview

Other key ratios, as per closing date	2016	2015	2014	2013	2012
Active return, Strategic management before costs <sup>1</sup>	1.0	4.8	0.7	1.2	-0.4
Active return, Tactical management before costs <sup>2</sup>	0.0	0.1	0.7	0.5	1.0
Inflation	1.7	0.1	-0.3	0.1	-0.1
Real total return after costs	8.3	6.8	16.0	16.2	11.3
Active risk ex-post, Tactical management	0.3	0.5	0.2	0.2	0.4
Currency exposure, %	26.9	27.0	28.1	28.6	27.7
Proportion active mangement incl. Semi-active, %	69.3	69.9	62.9	58.2	50.2
Proportion external management incl. Investments in venture capital funds, %	22.7	22.4	25.4	22.7	16.6
Number of employees at closing date	54	55	54	55	49
Allocation of investment assets, %3					
Equities	58.3	56.9	59.0	59.5	55.5
Global equities	39.4	38.4	40.5	40.1	37.2
Swedish equities	18.9	18.5	18.5	19.3	18.3
Fixed income	32.1	33.8	33.0	32.0	36.1
Real estate	7.3	6.6	5.5	5.7	5.2
Alternative assets <sup>4</sup>	2.3	2.6	2.7	2.7	3.1
Other	-0.1	0.0	-0.2	0.1	0.1
Total investment assets, %	100.0	100.0	100.0	100.0	100.0

<sup>&</sup>lt;sup>1</sup> Active return, Strategic management evaluated in relation to the Normal Portfolio.

# Carbon footprint for the listed equity portfolio

Carbon dioxide indicators	2016³	2015³	2014³	2013³ <sup>4</sup>	2012³ <sup>4</sup>
Absolute carbon footprint, equivalent to owned share of companies total emissions (tCO2e)	2 595 958	2 451 224	2 801 985	3 275 257	3 305 442
Carbon dioxide intensity, absolute carbon footprint in relation to ownership share of companies market value, <sup>2</sup> (tCO2e/MSEK), %	14.5	14.0	16.2	23.1	26.5
Carbon dioxide intensity, absolute carbon footprint in relation to ownership share of companies revenues, (tCO2e/MSEK), %	17.6	22.2			
Share of market value based on reported emission figures, %	55.7	56.4			
Share of total market value of shares that have been measured, %	95.5	99.8			

<sup>&</sup>lt;sup>1</sup> Key figures are calculated for the assets in the balance sheet item Shares and participations, listed. Equity exposure can be included if information about the funds' underlying holdings is available. GHG emissions (greenhouse gas GHG) estimated to belong to AP4 is based on the percentage of AP4's ownership in a company. GHG emissions include Scope 1 (emissions from the company's business, wholly owned or controlled by the Company) and Scope 2 (indirect emissions from the purchase of energy). Currently, there are no standardized methods for calculating the carbon footprint of financial holdings, which means that the calculated carbon footprint is not always comparable between different suppliers.

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<sup>&</sup>lt;sup>2</sup> Full or part-owned real estate is recognized as an internal management.

<sup>&</sup>lt;sup>3</sup> Refers to exposure, underlying derivative values in the passive allocation have been distributed by asset class.

<sup>&</sup>lt;sup>4</sup> Refers to venture capital funds, High yield fixed income securities and absolute return investments.

<sup>&</sup>lt;sup>2</sup> Market capitalization of AP4's listed equity portfolios.

<sup>&</sup>lt;sup>3</sup> Source: For 2016, data from MSCI ESG Research was used. In previous years, the South Pole Group analysed and calculated AP4's indirect GHG emissions and carbon footprint.

<sup>&</sup>lt;sup>4</sup> The measurements for 2012 and 2013 pertain to the portfolio composition at mid-year.

# **Income statements**

SEK m	Note	2016	2015
OPERATING INCOME			
Net interest income	2	817	2 002
Dividends received		6 482	5 347
Net income, listed shares and participations	3	12 678	6 651
Net income, unlisted shares and participations	4	3 545	3 833
Net income, fixed income assets		1 882	-1 151
Net income, derivatives		-321	-781
Net income, changes in exchange rates		5 786	4 529
Commission expenses	5	-132	-128
Total operating income		30 737	20 302
OPERATING EXPENSES			
Employee expenses	6	-117	-124
Other administrative expenses	7	-78	-73
Total operating expenses		-195	-197
PROFIT/LOSS FOR THE YEAR		30 542	20 105

# Balance sheet

SEK m	Note	2016-12-31	2015-12-31
ASSETS			
Shares and participations, listed	8	197 875	177 367
Shares and participations, unlisted	9	26 254	19 822
Bonds and other fixed income securities	10	107 151	106 548
Derivatives	11	2 620	3 296
Liquid assets		3 057	3 739
Other assets	12	220	894
Prepaid expenses and accrued income	13	1 267	1431
Total assets		338 444	313 097
LIABILITIES AND FUND CAPITAL			
Liabilities			
Derivatives	11	3 919	1 888
Other liabilities	14	250	974
Prepaid income and accrued expenses	15	355	220
Total liabilities		4 524	3 082
Fund capital	16		
Fund capital, opening balance		310 015	294 854
Net payments to the pension system		-6 637	-4 944
Profit/loss for the year		30 542	20 105
Total fund capital		333 920	310 015
TOTAL LIABILITIES AND FUND CAPITAL		338 444	313 097

Pledged assets, contingent liabilities and commitments

# Notes to the Income Statement and Balance Sheet

AP4, corporate identity number 802005-1952, is one of the buffer funds in the Swedish National Pension system and is headquarted in Stockholm. The Board approved the Annual Report for the 2016 financial year on February 21, 2017. The government will adopt the Income Statement and Balance Sheet.

# f 1 Accounting and valuation principles

According to the Swedish National Pension Funds Act (2000:192), the annual report shall be prepared according to generally accepted accounting principles, such that the assets in which AP4's funds are invested shall be recognized at fair value. Based on this premise, AP1–AP4 have developed and put into practice a set of common accounting and valuation policies as summarized below.

The funds' accounting and valuation principles are gradually being adapted to the international accounting standards, IFRS. Since IFRS is under extensive revision, alignment has so far focused on the information requirements of IFRS 7 and IFRS 13. A complete transition to IFRS would not materially affect the reported results and capital. AP4 meets the requirement of an investment company in accordance with IFRS 10. In the current IFRS the only major difference is that the cash flow statement is not established.

## Trade date accounting

Transactions in securities and derivatives in the money and bond market, equity market and currency market are reported in the balance sheet on the trade date, i.e. at the time when the essential rights and risks are transferred between parties. Claims on or liabilities to the counterparty between the trade date and settlement date are reported under Other assets and Other liabilities. Other transactions, especially transactions in unlisted shares are recognized in the balance sheet on the settlement date, which is consistent with market practice.

# Net accounting

Financial assets and liabilities are offset in the balance sheet when there is a legally enforceable right to offset transactions and there is an intention to settle net or realize the asset and settle the liability simultaneously.

# Foreign currency translation

Transactions in foreign currencies are translated into Swedish crowns at the exchange rates prevailing at the transaction date. On the balance sheet date, assets and liabilities denominated in foreign currencies are translated to Swedish crowns at the closing date exchange rates. Changes in the value of assets and liabilities in foreign currency are divided between those attributable to the change in value of the asset or liability in local currency and those caused by currency rate changes. Foreign exchange earnings arising from changes in exchange rates are recognized in the income statement under Net income, changes in exchange rates.

### Shares in subsidiaries/associated companies

According to the Swedish National Pension Funds shares in subsidiaries/ associated companies are recognized at fair value. Fair value is determined using the same methods used for unlisted shares. There is no requirement to prepare consolidated accounts.

#### Valuation of financial instruments

All of the Fund's investments are stated at fair value such that realized and unrealized changes in value are recognized over the income statement. The lines Net profit/loss per asset class includes realized and unrealized gains. Please see the glossary in the annual report for information about each index in the case where reference is made to an index provider. The following describes how fair value is determined for the Fund's different investments.

#### Listed shares and participation

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

### **Unlisted shares and participations**

For shares and participations not traded on a regulated market or trading platform, fair value is determined based on a valuation obtained from the counterparty or other external party. The value recognized is updated upon receipt of a new valuation and is adjusted for any cash flows up to the end of the accounting period. If the Fund has good reason to judge the valuation to be incorrect, the valuation received is adjusted.

Stated values relating to unlisted participations comply with International Private Equity and Venture Capital (IPEVC) Valuation Guidelines, or equivalent principles, and are based primarily on transactions with third parties, though other valuation methods may be used such as discounted cash flow, net worth or multiples based valuation.

The valuation relating to unlisted real estate shares is based on a valuation according to the net worth method to the extent that the share has not been subject to transactions on a secondary market. From 2013 onwards, deferred tax liabilities are valued at the value used in real estate transactions, which differs from the valuation in the accounts of the real estate companies.

## Bonds and other fixed income securities

For bonds and other fixed income securities, fair value is calculated based on the official public quotation (usually the bid rate) at year-end according to the Fund's designated index provider. Holdings not included in an index are recognized at quoted prices observable in an active market. If 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 discount cash flows using a yield curve appropriate for the instrument.

Interest income includes interest calculated using the effective interest method based on amortized acquisition cost. This value is the discounted present value of future payments, where the discount rate is the effective interest rate at the date of acquisition. This means that acquired premiums and discounts are amortized over the remaining term or until the next interest rate adjustment and is included in and reported as Interest income. Changes in value due to interest rate changes are recognized in Net income from interest-bearing assets, while changes in value due to exchange rate fluctuations are recognized in Net income changes in exchange rates.

#### **Derivative instruments**

For derivatives, fair value is calculated based on year-end market rates. If an instrument is not traded in an active market and if 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 reported as assets, while positions with a negative fair value are reported as liabilities. Changes in value due to exchange rate changes are recognized in the income statement under Net Income, changes in exchange rates, while other changes in value are reported as Net income, derivatives. The difference between forward and spot rates for currency forwards are amortized linearly over the term of the contract and recognized as interest.

#### **Buybacks**

In repurchase transactions, so called repo, the asset remains in the balance sheet and the payment received is recognized as a liability. The security sold is reported as a Pledged asset in the balance sheet. The difference between the settlement in the spot and futures market is accrued over the term and reported as interest.

## **Securites Lending**

Securities lent are recognized in the balance sheet at fair value, while the compensation received for the loan is recognized as Interest income in the income statement. Collateral received for loaned securities may consist of securities and / or cash. If AP4 is entitled to exercise control over cash received as collateral, the collateral is recognized on the balance sheet as an asset, and an offsetting liability. In the case the Fund does not have disposal of the security it is not recognized on the balance sheet, but is specified separately under the heading "Assets pledged, contingent liabilities and commitments". This item includes the value of securities on loan and collateral of such.

### Items recognized directly in fund capital

Receipts and payments that have been made to the pension system are recognized directly in fund capital.

## Commission expenses

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

Management fees for unlisted shares, for which a refund is permitted before dividends and where repayment is deemed probable, are recognized as Acquisition cost and will therefore be included in the unrealized result.

In other cases, they are reported as Commission expenses.

## Operating expenses

All management expenses, excluding brokerage fees, fees to external managers and custodian fees, are recognized 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. Tax on dividends and interest withheld in certain countries is recognized net in the income statement under each type of income.

As of 2012, AP4 is registered for value added tax and is thus liable to pay VAT for acquisitions from abroad. AP4 is not entitled to recover paid VAT. Expensed VAT is included in the expense item to which it belongs.

Amounts in SEK m, unless otherwise specified.

# 2 Net interest income

	2016	2015
Interest income		
Bonds and other fixed income securities	1 930	2 441
Derivative instruments	387	1 390
Other interest income	78	64
Total interest income	2 395	3 895
Interest expense		
Derivative instruments	-1 578	-1 893
Other interest expenses	0	0
Total interest expenses	-1 578	-1 893
Net interest income	817	2 002

# 3 Net income, listed shares and participations

	2016	2015
Net income, listed shares and participations	12 709	6 683
Less brokers' commissions	-32	-32
Net income, listed shares and participations	12 678	6 651

# Net income, unlisted shares and participations

	2016	2015
Realized gains	550	278
Unrealized changes in values	2 995	3 555
Net income, unlisted shares and participations	3 545	3 833

Recognition of external management fees for unlisted assets is made according to two different principles, and is dependent on whether the underlying management agreements permit repayment prior to profit sharing in connection with future profitable exits or not. In the case where contracts permit such repayment, the repaid fees are recognized as part of the acquisition cost of the asset and are charged as Unrealized net income

for unlisted assets. Consequently, repaid management fees affect Unrealized earnings. In cases where the agreement does not permit repayments, paid fees are charged to Commission expenses.

During the year, a total of SEK 46 (39) million was paid in management fees for unlisted assets, of which SEK 46 (39) million permit repayment in accordance with the above principle. During the year, SEK 96 (36) million was repaid and the unrealized result of unlisted shares had a net impact of SEK 50 (negative by 3) million. Paid fees in which contracts did not permit repayment amounted to SEK 0 (0) and is recognized as Commission expenses, please see Note Commission expenses.

# 5 Commission expenses

	2016	2015
External management fees, listes shares	-118	-115
External management fees, unlisted shares	0	0
Other commission expenses, including custodian bank		
fees	-14	-13
Commission expenses	-132	-128

Commission expenses do not include performance-based fees. Performance-based fees for the year amounted to SEK 13 (54) million and reduced Net income for the respective asset class. External management fees for unlisted assets are reported under Commission expenses to the extent agreements do not permit repayment prior to profit sharing in connection with future profitable divestments.

# 6 Personnel

Number of employees	Total	Women	Total	Women
Average number of employees	53	19	55	20
Number of employees, December 31	54	19	55	21
Number of Executive Management members, December 31	7	2	7	2

# Cost of personnel redundancies

The 2016 cost of personnel reductions amounted to SEK 1 109 (4 301) K and related to compensation for salary, pension costs and social security charges.

# Salaries and remuneration

Remuneration for the Board of Directors, set by the Government, is unchanged in relation to the previous year. The Board sets the terms of employment for the CEO based on recommendations from the Remuneration Committee. Remuneration to the CEO, Executive management and the compliance officer consists of a base salary. As assigned by the Board and Remuneration Committee, an external consultant annually performs an examination of remuneration levels for senior management at the Fund. The Board can thereby ascertain that AP4 complies with the Government's guidelines regarding remuneration for senior management at the AP Funds. Read more about remuneration under *Remuneration at AP4* on pages 38-39 in the Annual Report.

## Incentive-based remuneration

The plan for variable remuneration is part of the Fund's remuneration policy and is determined annually by the Board. The plan covers all

employees employed more than six months, except for the CEO, Executive management, Head of Risk Control and the Compliance officer. The basic principle is that incentive-based remuneration should be paid for excess returns relative to the benchmark and reference indexes, provided that the fund shows a positive result for the financial year. The maximum outcome for the full-year employee is two months' salary. For 2016, SEK 2 747 (4 266) thousand was expensed relating to variable remuneration, excluding social security contributions.

#### Pensions and similar benefits

Niklas Ekvall was appointed CEO by AP4's Board of Directors to succeed Mats Andersson, who left his position June 30, 2016. Mats Andersson's employment contract included a mutual notice period of six months. Niklas Ekvall assumed the role of CEO October 1, 2016.

The CEO's pension benefits and severance package are specified in his employment contract. The provisions of the contract include pension entitlement at age 65, with a pension provision of 30% (30) of salary. A mutual period of notice of termination of six (6) months applies for the CEO. If the Fund gives notice, the CEO is also entitled to a severance package equal to 18 months' salary. The severance package is paid out monthly and is reduced by any other income from salary, assignments or own business. The employment contract for the Deputy CEO, Magnus Eriksson who resigned from AP4 during the Fall of 2016, included a mutual notice period of six months. If the Fund gives notice, the Deputy CEO is also entitled to a severance package equal to 12 months salary. The severance package is paid out monthly and is reduced by any other income from salary, assignments or own business. The Deputy CEO is entitled to a pension in accordance with the Fund's pension policy.

Other executive management committee members and other employees have individual employment contracts that specify severance notice based on the current collective agreement between the Employers' Organization of the Swedish Banking Institutions (BAO) and the Swedish Confederation of Professional Associations (SACO). Pension entitlements are based on either defined benefits, according to the current collective agreement between BAO and SACO, or defined contributions, according to the Fund's pension policy specifying a pension contribution of 30% on remuneration exceeding 7.5 base amounts.

All employees are entitled to substitute gross salary for pension contributions. In such cases, the pension contribution is increased by 5.8%, corresponding to the difference between the Fund's costs for payroll tax and social security contributions. The procedure is neutral in terms of costs for the Fund.

All employees have healthcare coverage. The CEO and persons employed before 1 January 2007 have, in addition to remuneration as per the collective agreement, health insurance covering terms of illness longer than three (3) months, which pays compensation amounting to 90% of income up to 20 base amounts and 80% of income above 20 base amounts, with a ceiling amounting to 40 base amounts. The amount disbursed is reduced by any amounts paid from the Swedish Social Insurance Agency, SPP insurance, and any other insurance policies.

#### Other benefits

All employees can purchase group life insurance taxed as a fringe benefit. CEO has the right to one parking space, which is taxed as a fringe benefit. The funds also has four parking spaces that employees can use, which also is taxable as a fringe benefit. The value of the benefits in 2016 totaled 200 (193) k.

# 6 Cont Personnel

Employee Costs, SEK k, 2016	Salaries and remuneration	Incentive- based remuneration	Pension costs	Substitution of salary for pension	Socal security costs <sup>8</sup>	Total
Chairman of the Board Monica Caneman <sup>1</sup>	29	-	-	-	9	38
Chairman of the Board Sarah McPhee <sup>2</sup>	74	-	-	-	23	97
Other Board Directors <sup>3</sup>	511	-	-	-	138	649
Chief Executive Officer Mats Andersson <sup>4</sup>	2 622	-	1 374	556	1 157	5 153
Chief Executive Officer Niklas Ekvall <sup>5</sup>	1 110	-	333	-	430	1 873
Other Executive Management members						
Deputy CEO and Chief Investment Officer Magnus Eriksson <sup>6</sup>	1 564	-	1 774	990	922	4 260
Head of Global Macro Bengt Lindefeldt	3 244	-	845	-	1 224	5 313
Head of Equity Management Per Colleen	2 689	-	724	143	1 021	4 434
Chief Operating Officer Susan Lindkvist	1 542	-	985	381	723	3 250
Head of Performance and 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 <sup>7</sup>	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

<sup>&</sup>lt;sup>8</sup> The social security costs also includes costs for payroll tax.

Employee Costs, SEK k, 2015	Salaries and remuneration	Incentive- based remuneration	Pension costs	Substitution of salary for pension	Socal security costs²	Total
Chairman of the Board Monica Caneman	117	-	-	-	37	154
Other Board Directors <sup>1</sup>	507	-	-	-	126	633
Chief Executive Officer Mats Andersson	3 234	-	2 200	834	1 550	6 984
Other Executive Management members						
Deputy CEO and Chief Investment Officer Magnus Eriksson	1 863	-	2 533	1 485	1 200	5 596
Head of Global Macro Bengt Lindefeldt <sup>3</sup>	2 930	-	1 285	281	1 232	5 447
Head of Equity Management Per Colleen	2 199	-	843	127	895	3 937
Chief Operating Officer Susan Lindkvist	1 493	-	930	322	694	3 117
Head of Performance and Risk Control Nicklas Wikström	1 599	-	752	175	685	3 036
General Counsel Ulrika Malmberg Livijn	1 427	-	807	270	644	2 878
Other employees	47 606	4 266	16 831	1 747	19 953	88 656
Total	62 975	4 266	26 181	5 241	27 016	120 438
Other personnel costs						3 234
Total personnel costs						123 672

<sup>&</sup>lt;sup>1</sup> Individual Directors' fees is recognized in the fund governance report <sup>2</sup> The social security costs also includes costs for payroll tax. <sup>3</sup> Member of the Executive Management as of December, 2015.

Member of the Board until March 31, 2016.
 Member of the Board as of April 28, 2016.
 Individual Directors' fees is recognized in the fund governance report.
 Member of the Executive Management until August 31, 2016.
 Member of the Executive Management as of October 1, 2016.

<sup>&</sup>lt;sup>6</sup> Member of the Executive Management until September 30, 2016.

<sup>&</sup>lt;sup>7</sup> Member of the Board as of July 1, 2016.

# 7 Other Administrative costs

	2016	2015
Cost of premises	12	12
Information and IT costs	46	43
Services	11	7
Other administrative costs	9	11
Total other administrative costs	78	73
Services including accounting firms fees as follows:		
Audit services, PwC	0.4	0.8
Audit services, Ernst & Young	-	-0.2
Other audit assignment, PwC	-	0.2
Other audit assignment, Ernst & Young	-	-0.1
Total fees to accounting firms	0.4	0.7

# 8 Shares and participations, listed

	2016-12-31	2015-12-31
	Fair value	Fair value
Swedish equities	62 871	57 182
Foreign equities	95 511	83 386
Participation in Swedish mutual funds	5 408	4 761
Participation in Foreign mutual funds	34 085	32 038
Total shares and participations, listed	197 875	177 367

The Scope of securities on loan as well as collateral received is presented in note 17.

A complete list of holdings can be found at www.ap4.se.

# Five largest holdings in Swedish and foreign equities, December 31, 2016

	No. Shares Fa	ir value	Equity, %	Votes, %
Swedish equities				
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
Foreign equities				
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		

# Five largest holdings in Swedish and foreign equities, December 31, 2015

	No. Shares F	air value	Equity, %	Votes, %
Swedish equities				
Hennes & Mauritz	15 317 233	4 627	0.9	0.4
Nordea	32 334 195	3 017	0.8	0.8
Atlas Copco	14 060 067	2 831	1.1	0.8
SEB	23 171 354	2 072	1.1	1.1
Volvo	24 637 626	1 969	1.2	1.8
Foreign equities				
Apple	1 609 214	1 428		
Alphabet	169 480	1 097		
Microsoft	2 105 402	985		
Exxon Mobil	1 172 953	771		
General Electric	2 656 850	698		

# 9 Shares and participations, unlisted

	2016-12-31	2015-12-31
	Fair value	Fair value
Shares in Swedish associated companies	21 031	14 253
Shares in Foreign associated companies	687	802
Shares and participations in other Swedish unlisted companies	1 776	1 814
Shares and participations in other Foreign unlisted companies	2 760	2 953
Total shares and participations, unlisted	26 254	19 822

Corp. ID Number	Domicile	No. Shares	Equity, %	Votes, %	Fair value	Shareholders equity	Profit/Loss
556650-4196	Stockholm	1 000 000	25	25	13 771	46 117	10 91
556806-2466	Stockholm	250	50	50	7 260	13 451	2 48
					21 031		
	Luxemburg	1 609 214	38	38	307	Not disclosed	Not disclose
	Luxemburg 1	182 066 506	45	45	380	Not disclosed	Not disclose
	Luxemburg	0	35	35	0	Not disclosed	Not disclose
	Number 556650-4196	Number Domicile  556650-4196 Stockholm  556806-2466 Stockholm  Luxemburg  Luxemburg 1	Number         Domicile         Shares           556650-4196         Stockholm         1 000 000           556806-2466         Stockholm         250           Luxemburg         1 609 214           Luxemburg         182 066 506	Number         Domicile         Shares         %           556650-4196         Stockholm         1 000 000         25           556806-2466         Stockholm         250         50           Luxemburg         1 609 214         38           Luxemburg         182 066 506         45	Number         Domicile         Shares         %         %           556650-4196         Stockholm         1 000 000         25         25           556806-2466         Stockholm         250         50         50           Luxemburg         1 609 214         38         38           Luxemburg         182 066 506         45         45	Number         Domicile         Shares         %         %         Fair value           556650-4196         Stockholm         1 000 000         25         25         13 771           556806-2466         Stockholm         250         50         50         7 260           21 031           Luxemburg         1 609 214         38         38         307           Luxemburg         182 066 506         45         45         380	Number         Domicile         Shares         %         %         Fair value         equity           556650-4196         Stockholm         1 000 000         25         25         13 771         46 117           556806-2466         Stockholm         250         50         50         7 260         13 451           21 031           Luxemburg         1 609 214         38         38         307 Not disclosed           Luxemburg         182 066 506         45         45         380 Not disclosed

Other holdings, 2016-12-31	Corp. ID Number	Domicile	Equity, %	Votes, %	Acquisition Cost
Five largest holdings in other shares & participations, Swedish unlisted companies <sup>1</sup>					
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 & Didriksson AB B	556805-6559	Stockholm	31	18	84
Five largest holdings in other shares & participations, foreign unlisted companies <sup>1</sup>					
EQT Mid-Market Credit SV S.A		Guernsey	24		445
EQT V (No. 1) L.P.		Luxemburg	2		274
EQT Infrastructure II (No.1) Feeder L.P.		Caymanöarna	3		255
Private Equity Multi-Strategy (AP) Offshore L.P.		Guernsey	95		211
Keyhaven Growth Partners L.P		Storbritannien	29		159

<sup>&</sup>lt;sup>1</sup> Refers to AP4's holdings in limited partnership structures and other similar structures in which AP4 does not have a signficant influence.

Shares in associated companies, 2015-12-31	Corp. ID Number	Domicile	No. Shares	Equity, %	Votes, %	Fair value	Shareholders equity	Profit/Loss
Shares in Swedish associated companies:								
Vasakronan Holding AB	556650-4196	Stockholm	1 000 000	25	25	8 982	29 245	10 120
Rikshem Intressenter AB	556806-2466	Stockholm	250	50	50	5 271	9 802	1 887
Rikshem Intressenter Holding AB	556924-0715	Stockholm	50	100	100	0	-	-
Total shares in Swedish associated companies						14 253		
Shares in foreign associated companies:								
ASE Holdings S.à.r.l.		Luxemburg	1 609 214	38	38	447	Not disclosed	Not disclosed
ASE Holdings II S.à.r.l.		Luxemburg	1 200 001	45	45	355	Not disclosed	Not disclosed
Total shares in foreign associated companies						802		

Other holdings, 2015-12-31	Corp. ID Number	Domicile	Equity, %	Votes, %	Acquisition Cost
Five largest holdings in other shares & participations, Swedish unlisted companies <sup>1</sup>					
PCP Debenture IIB	556805-6310	Stockholm	48	-	506
Areim Investment 3-1 AB	559035-6035	Stockholm	17	4	300
Areim Fastigheter 3 AB	559035-9161	Stockholm	5	3	193
HealthCap Annex Fund I-II KB	969690-2049	Stockholm	20	20	174
Areim Property Holding 5 AB	556963-0261	Stockholm	33	6	140
Five largest holdings in other shares & participations, foreign unlisted companies <sup>1</sup>					
EQT V (No. 1) L.P.		Guernsey	2		354
EQT Mid-Market Credit SV S.A		Luxemburg	36		261
Private Equity Multi-Strategy (AP) Offshore L.P.	(	Caymanöarna	95		246
EQT Infrastructure (No. 1) L.P.		Guernsey	3		246
Keyhaven Growth Partners L.P	S	torbritannien	29		159

 $<sup>^1\,\</sup>text{Refers to AP4's holdings in limited partnership structures and other similar structures in which AP4 does not have significant influence.}$ 

# 10 Bonds and other fixed income securities

	2016-12-31	2015-12-31
	Fair value	Fair value
Breakdown by issuer category		
Swedish State	7 075	10 068
Swedish municipalities	0	75
Swedish mortage institutions	22 356	19 714
Other Swedish financial services companies	8 886	7 274
Swedish non-financial companies	241	3 244
Foreign governments	47 524	43 223
Other foreign issuers	21 069	22 950
Total fixed income assets	107 151	106 548
Breakdown by instrument type		
Inflation-linked bonds	0	0
Other bonds	104 524	100 312
Treasury bills	0	0
Subordinated loans	1 933	2 500
Unlisted promissory note loans	42	3 058
Unlisted shareholder loans	652	678
Total fixed income assets	107 151	106 548

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

# 11 Derivatives

	2016-12-31		2015-12-31		
		Fair value	Fair value		
	Positive	Negative	Positive	Negative	
Interest rate related instruments:					
FRA/Futures			-	-	
Swaps	174	96	181	101	
Total interest rate related instruments	174	96	181	101	
of which cleared	-	-	-	-	
Currency-related instruments:					
Options	735	665	949	890	
Futures	1 703	2 920	2 159	724	
Swaps	8	238	7	173	
Total Currency-related instruments	2 446	3 823	3 115	1 787	
of which cleared					
Total derivative instruments	2 620	3 919	3 296	1 888	
of which cleared	-	-	-	-	

For details about areas of use and risk management for derivative instruments refer to note 20 Risks.

# Maturity analyses

The majority of the Fund's derivatives have a maturity of less than one year. Only a number of currency options, cross currency basis swaps, credit default swaps and currency forwards have a longer maturity and

of these 57 (32) contracts have a negative fair value. These are presented in the tables below.

# Outstanding currency options, December 31, 2016

Currency pair	Time to maturity (years)	Fair value (SEK m)
USD/SEK	1,6	-35
USD/SEK	1,6	-35
USD/JPY	1,8	-34
USD/JPY	2,1	-32
USD/JPY	2,7	-31
USD/JPY	2,7	-31
USD/JPY	2,1	-19
USD/JPY	2,7	-17
USD/JPY	2,7	-17
EUR/NOK	1,4	-16
USD/JPY	2,1	-15
USD/SEK	1,6	-11
USD/SEK	1,6	-11
EUR/NOK	1,3	-10
EUR/NOK	1,3	-10
EUR/NOK	1,3	-7
USD/JPY	2,0	-5
USD/JPY	1,8	-5
EUR/NOK	1,4	-3
USD/JPY	2,7	-2
USD/JPY	2,7	-2
EUR/NOK	1,3	-2
EUR/NOK	1,3	-2
USD/MXN	1,3	-2
USD/MXN	1,7	-2
USD/JPY	1,8	-2
USD/JPY	1,8	-2
EUR/NOK	1,3	-2
USD/MXN	1,9	-1
USD/JPY	1,8	-1
USD/JPY	1,8	-1
Total		-367

# Outstanding currency options, December 31, 2015

outstand outstand, opins	- u totalianing carretie, epinemo, e cocimical e e, e e e					
Currency pair	Time to maturity (years)	Fair value (SEK m)				
USD/SEK	1,7	-30				
USD/SEK	1,7	-28				
USD/SEK	1,7	-17				
USD/SEK	1,7	-16				
USD/SEK	1,7	-9				
USD/SEK	1,7	-5				
USD/BRL	1,8	-0				
USD/BRL	1,7	-0				
Total		-107				

# Cross Currency Basis Swaps, December 31, 2016

Currency pair	Time to maturity (years)	Fair value (SEK m)
EUR/SEK	3.1	-14
EUR/SEK	1.9	-13
EUR/SEK	3.2	-7
Total		-34

# Credit Default Swaps, December 31, 2016

Currency pair	Time to maturity (years)	Fair value (SEK m)
CDS INDEX	5.0	-36
CDS INDEX	2.0	-20
CDS INDEX	5.0	-18
CDS INDEX	6.0	-5
CDS SINGLE	5.0	-3
CDS SINGLE	4.5	-3
CDS SINGLE	2.7	-3
CDS SINGLE	5.0	-2
CDS SINGLE	4.0	-2
CDS SINGLE	3.3	-1
CDS SINGLE	5.0	-0
CDS SINGLE	5.0	-0
CDS SINGLE	2.7	-0
CDS SINGLE	1.5	-0
CDS SINGLE	6.6	-0
CDS SINGLE	2.0	-0
CDS SINGLE	3.5	-0
CDS SINGLE	3.5	-0
Total		-95

# Currency futures, December 31, 2016

Currency pair	Time to maturity (years)	Fair value (SEK m)
EUR/SEK	1.3	-3
EUR/SEK	1.3	-3
USD/SEK	1.2	-2
USD/SEK	1.0	-2
EUR/SEK	1.3	-1
Total		-10

# Cross Currency Basis Swaps, December 31, 2015

Currency pair	Time to maturity (years)	Fair value (SEK m)
USD/SEK	1.5	-149
Total		-149

# Credit Default Swaps, December 31, 2015

Currency pair	Time to maturity (years)	Fair value (SEK m)
CDS INDEX	3.0	-22
CDS INDEX	5.0	-16
CDS INDEX	5.0	-13
CDS INDEX	5.0	-11
CDS INDEX	5.0	-5
CDS SINGLE	3.8	-3
CDS SINGLE	1.2	-3
CDS INDEX	5.0	-3
CDS INDEX	7.1	-2
CDS SINGLE	4.5	-2
CDS SINGLE	5.0	-2
CDS SINGLE	1.5	-2
CDS SINGLE	1.2	-1
CDS SINGLE	3.5	-1
CDS SINGLE	1.5	-1
CDS SINGLE	2.5	-0
Total		-104

# Currency futures, December 31, 2015

Currency pair	Time to maturity (years)	Fair value (SEK m)
GBP/SEK	1.2	-5
EUR/SEK	1.3	-1
EUR/SEK	1.5	-1
EUR/SEK	1.2	-1
Total		-9

# 12 Other assets

	2016-12-31	2015-12-31
Outstanding receivables	219	893
Other assets	1	1
Total other assets	220	894

# 13 Prepaid expenses and accrued income

	2016-12-31	2015-12-31
Accrued interest income	1 032	1 239
Accrued dividends and repayments	227	184
Other prepaid expenses and accrued income	8	8
Total prepaid expenses and accrued income	1 267	1 431

# 14 Other liabilites

	2016-12-31	2015-12-31
Trade accounts payable	5	6
Outstanding liabilities	239	962
Other liabilities	6	6
Total other liabilities	250	974

# 15 Deferred income and accrued expenses

	2016-12-31	2015-12-31
Accrued interest expenses	337	197
Accrued employee benefits expenses	10	13
Accrued external management fees	4	7
Other accrued expenses	4	3
Total deferred income & accrued expenses	355	220

# 16 Fund capital

	2016-12-31	2015-12-31
Fund capital, opening balance	310 015	294 854
Net payments to/from the pension system		
Paid-in pension contributions	64 174	61 373
Pension funds disbursed to the Swedish Pension Authority	-70 595	-66 141
Transfer of pension rights to EG	-1	-3
Settlement of pension rights	1	2
Administration fees to the Swedish Pension Authority	-216	-176
Total net payments to the pension system	-6 637	-4 944
Profit/Loss for the year	30 542	20 105
Fund capital, closing balance	333 920	310 015

# ${\color{red}17} \ {\color{blue} Pledged assets, contingent liabilities and commitments}$

	2016-12-31	2015-12-31
Other pledged assets and equivalent collateral		
Securities on loan against collateral received in the form of securities <sup>1</sup>	25 072	20 062
Collateral pledged for exchange-cleared derivative contracts	1 136	1 427
Pledged assets pertaining to OTC derivatives contracts <sup>2</sup>	2 994	126
Commitments		
Investment commitments to future		
payments for alternative and strategic investments	9 962	6 457
Subsciption Commitments, see note 18	9 500	8 000

<sup>&</sup>lt;sup>1</sup> Collateral recieved for loaned securities amounts to SEK 25 877 (20 802) m.

# 18 Related parties

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

2016-12-31	2015-12-31
147	215
11	11
3 000	C
0	3 000
4 500	4 500
9	125
586	1 661
5 000	3 500
28	30
225	249
26	21
34	66
312	<b>2</b> 93
	147 11 3 000 0 4 500 9 586 5 000 28 225 26 34

 $<sup>^{\</sup>rm 1}$  AP4 leases its premises from Vasakronan AB at market rates.

Salaries and remuneration for the Board and Executive Management, see note 6.

<sup>&</sup>lt;sup>2</sup> Collateral received for OTC derivatives contracts amounted to SEK 208 (1 252) mkr.

<sup>&</sup>lt;sup>2</sup> On the request of Vasakronan and Rikshem, AP4 has committed to buy corporate certificates in the company at any given time up to the maximum amount reported.

# $19\,$ Financial instruments, price and valuation hierarchy

	2016-12-31	2016-12-31	2016-12-31	2016-12-31
Fair value, SEK m	Level 1	Level 2	Level 3	Total
Financial assets				
Shares and participations, listed	157 538	37 819	2 518	197 875
Shares and participations, unlisted	-	-	26 254	26 254
Bonds and other fixed income securities	105 921	385	845	107 151
Derivatives	0	2 620	-	2 620
Total financial assets	263 459	40 824	29 618	333 901
Financial liabilities				
Derivatives	0	-3 919	-	-3 919
Total financial liabilities	0	-3 919	-	-3 919
Net financial assets and liabilities	263 459	36 906	29 618	329 982

	2015-12-31	2015-12-31	2015-12-31	2015-12-31
Fair value, SEK m	Level 1	Level 2	Level 3	Total
Financial assets				
Shares and participations, listed	139 682	35 308	2 377	177 367
Shares and participations, unlisted	-	-	19 822	19 822
Bonds and other fixed income securities	102 512	144	3 892	106 548
Derivatives	0	3 296	-	3 296
Total financial assets	242 195	38 749	26 090	307 034
Financial liabilities				
Derivatives	0	-1 888	-	-1 888
Total financial liabilities	0	-1 888	-	-1 888
Net financial assets and liabilities	242 195	36 861	26 090	305 146

### Level 1. Instruments with publicly quoted prices

Financial instruments traded in an active market. A market is deemed active if quoted prices are regularly updated more frequently than once a week and if the prices used are unaltered to settle trades in the market. More than 80% of AP4's investment assets within the asset classes' equities, bonds and derivatives can be found here.

# Level 2. Valuation methods based on observable market data

Financial instruments traded in a market that is not deemed active, but where there are quoted prices that are used uncorrected for trades, or observable input data for indirect valuation, which is updated regularly. This category at AP4 mainly includes publicly quoted equity funds with few trades, but with observable input data for indirect valuation, as well as OTC derivatives such as forward exchange contracts and interest rate swaps, as well as fixed income instruments and funds containing interest rate instruments with low liquidity.

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

# Level 3. Valuation methods based on non-observable market data

Financial instruments that cannot be classified as level 1 or level 2. Unlisted shares and shareholder loans in directly held real estate companies and unlisted shares in venture capital firms are mainly found here. IPEV's principles are mainly used as a framework for venture capital firms, which comprises several valuation methods such as valuation based on actual transactions, multiples valuation, net asset valuation and discounted cash flow.

The principles of IPD Swedish Property Index are used as a framework for holdings in directly owned property where two fundamental methods are prevailing. These are the local market price method and the indirect return method (NPV approach). Local market price method means that the property holdings are compared with similar properties sold on the open market while the indirect return method involves discounted forecasted 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 tremendous difficulties. Generally speaking, for unlisted real estate the yield requirement is crucial, but assumptions about factors such as vacancies, operating costs, marketing and profit growth are also of great importance. For venture capital firms, profit growth and the stock exchange valuation multiples are important. Level 3 valuations usually include a delay that in a positive trending market entail a cautious valuation.

Sensitivity analyses of Vasakronan, AP4's largest real estate holding, with a fair market value of shares and participations of SEK 13.8 billion is about 50 percent of unlisted shares of Level 3. According to the analysis a change in direct return requirement of +/- 0.25 percentage points changes the value of the holding in Vasakronan by approximately SEK -1.5/+1.7 billion.

Significant assumptions are made about valuation multiples and future cash flows for the valuation of AP4's investments in venture capital firms reported in unlisted shares corresponding to SEK 2.6 billion. Should the assumption of the multiple of EV / EBITDA change by +/- 5 percent the valuation of these investments will change by - / + SEK 330 million.

The valuation of AP4's high-yield fixed-income assets reported in listed shares is based substantially on the discount rates of interest and repayment of loans. A change in the discount rate of +/- 1 percentage point for all maturities would entail a change in value of - / + SEK 76 million.

# Change in level 3

	Shares and participations, unlisted	Shares and participations, listed	Bonds and other fixed income securities
Opening balance, January 1, 2016	19 822	2 377	3 892
Realized and unrealized (+) or losses (-)			
in the income statement*	3 025	-163	-137
Purchase	4 189	777	205
Sale	-782	-472	-3 115
Closing balance, December 31, 2016	26 254	2 518	845
*of which unrealized gains	2 448	-255	-137

	Shares and participations, unlisted	Shares and participations, listed	Bonds and other fixed income securities
Opening balance, January 1, 2015	14 696	1 278	5 495
Realized and unrealized (+) or losses (-)			
in the income statement*	3 227	429	-16
Purchase	3 215	995	222
Sale	-1 315	-325	-1 810
Closing balance, December 31, 2015	19 822	2 377	3 892
*of which unrealized gains	3 133	256	-16

# 20 Risks

Refer to the heading *Risk Management* on pages 30-31 for a more detailed description.

#### **Business risks**

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

### Operational risks

Operational risks are the "risk of loss resulting from inadequate or failed processes, people and systems or from external events". The definition includes legal risks. Examples of operational risks can be conscious or unconscious mismanagement, which may be caused by substandard procedures or instructions, inadequate systems, insufficient control and audit, as well as by criminal actions or external events.

Operational risks within AP4 should be managed through an established, and common to all funds, process and methodology. There should be key controls for all significant risks, which as far as possible reduce the likelihood of risks materializing, or that mitigate the consequences when adverse events do occur. In the valuation of risks, existing key controls should be verified to ensure they have the desired functionality and effectiveness.

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

To minimize operational risks, a clear division of responsibilities and authorities should be documented in writing. Existing processes and procedures should ensure sound internal control and should be documented by way of relevant instructions.

All AP4 units and / or groups that are responsible for daily operations should meet the requirements for sound internal control and should allocate sufficient resources to this aim. This takes into account, among others, verification of compliance of all rules that apply to AP4; including the responsibility of each individual within AP4's organization to fulfil their duties in line with the objectives and operational plans, including within the framework of external and internal constraints.

The Performance & Risk Control (ARK) unit is responsible for risk management in order to support and coordinate operational risk management throughout the fund. This means that at a minimum the ARK unit monitors that common methods of risk management, with respect to operational risks, have been complied with for all mapped processes within the fund. The corresponding applies to identified material change processes such as for the implementation of new products, systems and organizational changes

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

#### Financial risks

The financial risks, which are primarily comprised of market, credit and liquidity risk, are monitored and controlled by an independent Performance and Risk Control department that reports directly to the CEO and Board. Management's goal is to only take positions that are expected to generate good returns within established risk mandates. Therefore, the main risks the Fund is exposed to consist of transparent financial risks that are predominantly market risks with good opportunities for risk premiums to be forecasted.

#### Market risks

Market risk is the risk that the value of an instrument is adversely affected due to fluctuations in share prices, currency rates or interest rates. Since AP4's holdings consists predominately of listed instruments with daily pricing on liquid markets, opportunities are good to regularly measure and report on market risk through both forecasted and realized risk amounts. The Fund aims to maintain 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 fixed-income assets are included in the measurement of interest rate risk relating to expected variation 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 by diversifying across different regions and yield curves, as well as by limiting the deviation in duration between the Tactical and Strategic management.

### **Currency risk**

Currency risk refers to the expected variations in exchange rates on assets denominated in foreign currencies. Currency risk arises in connection with investments denominated in foreign currencies. The law on Public Pension Funds limits the total currency risk exposure of the Fund to a maximum of 40 percentage points. AP4's investment policy determines final currency risk exposure for each major currency in the normal portfolio.

### Risk in investment assets

One method to calculate financial risk is the Value at Risk (VaR) metric. Value at Risk is defined as the maximum loss that can occur with a given probability and a given time horizon. The table below applies an analytical factor model for a time horizon of 10 days and a confidence level of 95%.

# 20 Cont Risks

### Risk in investment assets

	2016-12-31			2015-12-31		
Management horizon	VaR, ex-ante, holding-period, 10 days	Contribution volatility % 12 month portfolio	VaR, ex-ante, holding-period, 1 day²	VaR, ex-ante, holding-period, 10 days	Contribution volatility % 12 month portfolio	VaR, ex-ante, holding-period, 1 day²
Equities	7 225	8,00	2 152	6 568	7,83	2 119
Fixed income	-151	-0,17	-66	-100	-0,12	-31
Currency	-22	-0,02	71	4	0,00	319
Total Normal portfolio	7 053	7,81	2 157	6 471	7,71	2 407
Strategic Management <sup>1</sup>	486	0,54	-80	572	0,68	-66
Tactical management	154	0,17	-6	71	0,08	-10
Total investment assets	7 685	8,51	2 071	7 116	8,48	2 330

<sup>&</sup>lt;sup>1</sup> Some of the Fund's Strategic assets lack market quotations of the asset prices with good periodicity or are missing underlying holdings of an index. This makes it difficult to forecast the risks of these assets to the satisfaction of the Fund's risk system BarraOne. The Fund has therefore chosen to use alternative securities as approximations for these holdings. Overall, approximations are used for 15.4 percent of Strategic assets. Of this total, real estate holdings account for 5.4 percent where Swedish listed real estate shares have been used as an approximation. Further, the low-carbon mandate accounts for 4.3 percent and an approximation has been used corresponding to MSCI regional indices. Another 2.7 percent consists of an externally managed equities mandate in emerging markets and and MSCI Emering Markets have been used as an approximation.

The risk measure Value at Risk (VaR) is used for the calculation of financial risks. Value at Risk is defined as the maximum loss that can occur with a given probability over a given period. The table above uses a 10-day period and 95 percent confidence level, unless otherwise mentioned.

# Foreign Exchange exposure

AP4 hedges all holdings of foreign fixed income assets and part of its foreign equity shareholdings using currency derivatives. AP4's currency risk exposure at year-end was 26.9 (27.0) percent. The table below shows the Fund's currency exposure.

2016-12-31	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 securities	44 680	16 287	9 978	0	0	70 945
Derivate 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
Foreign Exchange exposure, net	56 321	10 458	9 889	7 082	6 104	89 854

2015-12-31	USD	EUR	GBP	JPY	Other	Total
Shares and participations	72 237	19 600	8 504	9 474	9 223	119 038
Bonds and other fixed income securities	41 870	15 376	11 305	0	0	68 551
Derivate instruments, excl. Currency derivatives	-845	-272	0	0	0	-1 117
Other receivables and liabilities, net	959	917	422	183	559	3 040
Currency derivatives	-60 832	-20 140	-11 168	-3 574	-9 949	-105 664
Foreign Exchange exposure, net	53 389	15 481	9 063	6 083	-168	83 849

<sup>&</sup>lt;sup>2</sup> To permit comparison with the First, Second and Third AP Fund, the Fund has also estimated VaR based on a one-day holding period, a 95 percent confidence level and a data length of one year in which the observations are given equal weight. This is a simulation method with historical return distribution used for the calculation.

# 20 Cont Risks

### Credit risks

Credit risk refers to the risk that an issuer or counterparty cannot fulfill its payment obligations. Credit exposure refers to the value that is exposed to credit risk through agreements with counterparties or issuers, that is, credit exposures include both issuer and counterparty exposure. The 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 are 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 must be included with all larger counterparties.

		Non-standard derivatives		
Rating category, 2016-12-31	Bond, exposure <sup>2</sup>	Fair value <sup>2</sup>	Collateral/security	Residual risk
AAA¹	81 707			
AA	16 513	-110	307	196
A	6 096	-1 387	1 576	189
BBB	2 934	-107	110	4
Lacks rating <sup>3</sup>	747			
Total credit risk exposure	107 997	-1 604	1 993	389

		Non-standard derivatives		
Rating category, 2015-12-31	Bond, exposure <sup>2</sup>	Fair value <sup>2</sup>	Collateral/security	Residual risk
AAA	50 199	4		
AA	40 054	318	-375	-56
A	5 143	739	-863	-124
BBB	8 260	175	-186	-11
Lacks rating <sup>3</sup>	3 773			
Total credit risk exposure	107 428	1 236	-1 424	-192

<sup>&</sup>lt;sup>1</sup> Several bonds and issuers received a new rating assessment in connection with the change of the internal rating criteria during 2016. It is primarily US Treasuries, with an exposure corresponding to SEK 29,367 million, which received a AAA rating rather than an AA rating.

<sup>&</sup>lt;sup>2</sup> Fair values, including accrued interest.

<sup>&</sup>lt;sup>3</sup> Refers to subordinated debt, bonds and shareholder loans in Alternative Investments and Real Estate.

# 20 Cont Risks

# Liquidity risk

Liquidity risk includes both liquidity risks relating 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 publicly quoted price.

A large proportion of AP4's securities are lendable at short notice. Any losses on currency futures and stock index futures may, however, be of significant amounts and daily estimates of liquidity in SEK and currencies must be calculated.

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

Liquidity risk can also be high if large net payments are needed given the Fund has a payment obligation to the Swedish Pensions Authority. It is then necessary to keep a large proportion of liquid assets. The Fund currently makes monthly payments to the Pensions Authority, which are relatively small in relation to existing capital.

Further, the Law on National Pension Funds limits liquidity risk given at least 30 percent of the Fund's total market value must be invested in debt instruments with low credit and liquidity risk.

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

The table below presents a summary of the Fund's liquidity risk according to maturity. Bonds and interest-bearing instruments are recognized at fair value, including accrued interest.

Maturity profile, 2016-12-31						
Term	< 1 yr.	1 < 3 yr.	3 < 5 yr.	5 < 10 yr.	> 10 yr.	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

Maturity profile, 2015-12-31						
Term	< 1 yr.	1 < 3 yr.	3 < 5 yr.	5 < 10 yr.	> 10 yr.	Total
Nominal government	634	3 434	12 537	26 852	9 847	53 304
Nominal corporate	4 042	11 703	28 256	8 066	2 058	54 124
Total	4 676	15 137	40 793	34 918	11 904	107 428

All liabilities have a maturity of less than one year except for a few currency options and credit derivatives (so-called credit default swaps), see Note 11. The aggregate market value of these contracts is limited and they have therefore been omitted from the above table.

## Managing derivatives

The Fund uses derivatives in most management mandates.

Derivatives have several different uses and purposes where the most important are the following:

- Hedging the Fund's foreign investments, for which derivatives are the only alternative.
- Making index management more efficient, where derivatives are used to minimize transaction costs and simplify administration.
- Making active management more efficient, where derivatives are used not only to minimize transaction costs and simplify administration but also to enable positions to be taken that cannot be generated 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 in terms of the nominal underlying values as well as 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, International Swaps and Derivatives Association Credit Support Annex (ISDA), and Credit Support Annex (CSA) must be included with all large counterparties. ISDA agreement relates to a standard agreement to regulate trading of derivatives between two counterparties. CSA agreements relate to an annex to an ISDA agreement.

CSA agreements regulate how collateral is posted as outstanding liabilities in the form of cash or securities.

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

				Amount n	ot netted in the	balance sheet		
2016-12-31	Gross amount	Netted amount in balance sheet	Net amount in balance sheet	Offsetting of financial instruments according to agreement	Securities Received	Net amount after offsetting	Other¹	Total in balance sheet
Assets								
Derivate instruments	2 620	0	2 620	2 314	188	118	-	2 620
Non-liquid receivables	1 401	1 400	1	-	-	1	218	219
Total	4 021	1 400	2 621	2 314	188	119	218	2 839
Liabilities								
Derivate instruments	3 919	0	3 919	2 314	1 603	2	-	3 919
Non-liquid receivables	1 400	1 400	0	-	-	0	239	239
Total	5 319	1 400	3 919	2 314	1 603	2	239	4 158

				Amount r	not netted in the	balance sheet		
2015-12-31	Gross amount	Netted amount in balance sheet	Net amount in balance sheet	Offsetting of financial instruments according to agreement	Securities Received	Net amount after offsetting	Other <sup>1</sup>	Total in balance sheet
Assets			_	•	•			
Derivate instruments	3 287	0	3 287	1 772	1 186	329	9	3 296
Non-liquid receivables	6 831	6 821	9	-	-	9	884	893
Total	10 118	6 821	3 297	1 772	1 186	338	893	4 189
Liabilities								
Derivate instruments	1 872	0	1 872	1 772	98	2	16	1 888
Non-liquid receivables	6 833	6 821	12	-	-	12	950	962
Total	8 705	6 821	1 884	1 772	98	14	965	2 850

<sup>&</sup>lt;sup>1</sup> Other instruments in the balance sheet not subject to agreement that allow offsetting.

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

# Board of directors' signatures

Stockholm, February 21, 2017

Sarah McPhee Chairman of the Board	Jakob Grinbaum Vice chairman
Heléne Fritzon	Ing-Marie Gren
Sven Hegelund	Stefan Lundbergh
Erica Sjölander	Maj-Charlotte Wallin
Göran Zettergren	Niklas Ekvall Chief Executive Officer
Our auditors' report was submitted on February 21, 2017	

Sussanne Sundvall

Authorised public accountant Appointed by the Government

Peter Nilsson

Authorised public accountant Appointed by the Government

# Auditor's Report

For the Fourth Swedish National Pension Fund, Corporate Identity Number 802005-1952.

## Report on the audit of the annual accounts

#### **Opinion**

We have audited the annual accounts of the Fourth Swedish National Pension Fund (AP4) for 2016. The Fund's annual accounts are included in the printed version of this document on pages 40-65.

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 AP4 as at 31 December 2016 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.

# 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 judgement 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 AP4'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 AP4 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 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 2016.

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 AP4's financial situation and ensuring that the organisation of AP4 is designed in such a manner that the accounts, funds management and AP4'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 AP4'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 AP4 for financial year 2016.

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 judgement 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 judgement 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 21 February 2017

### Sussanne Sundvall

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 members. All members are appointed by the government.



Sarah McPhee

Chairman of the board since 2016. Born 1954.

#### Other board assignments

**Chair:** SNS, The Royal Swedish Academy of Sciences Investment Committee.

**Director:** Klarna AB, Axel Johnson Inc., Bure

Equity AB.



**Jakob Grinbaum** 

Vice chairman since 2011.

Born 1949.

Other board assignments

Chair: Oscar Properties Holding AB.

Vice Chair: SBAB.

**Board Director:** IK Sirius, Jernhusen AB,

Östgötagården Uppsala Foundation, ATS Finans

Holding AB, ATS Finans AB.



#### **Heléne Fritzon**

Director since 2015.

Born 1960.

Local Government Commissioner, Kristianstad

Municipality

Other board assignments:

Chair: Koncernbolaget KKF, SKL:s förhandlings-

delegation

Director: SKL, EU - Committee of the Regions



Ing-Marie Gren

Director since 2011.

Born 1951.

Professor.



**Sven Hegelund** 

Director since 2012.

Born 1947.

Master in Political Science.

Other board assignments

Director: Nordiska investeringsbanken (NIB).



Stefan Lundbergh

Director since 2011.

Born 1968.

PH D.

Director Cardano Insights.



Erica Sjölander

Director since 2012.

Born 1971.

Chief Investigator, IF Metall.



Maj-Charlotte Wallin

Director since 2014.

Born 1953.

MBA

Other board assignments

**Director** Kammarkollegiets Fund delegation, Heart-Lung Foundation och Specialfastigheter AB.



Göran Zettergren

Director since 2015.

Born 1958.

IVIBA

CFO Confederation of Professional Employees

# Executive management

# AP4's Executive management consists of seven members.



**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, Nordea Investment Management AB, Hans Dahlborgs Stiftelse för Bank- och Finansforskning.



Per Colleen

Head of Equity management.
Employed since 2013. Born 1969.
B.Sc. Economics
Previous positions include SEB, DnB, MGA and



**Tobias Fransson** 

Head of Alternative Investments
Employed since 2003. Born 1968.
Master of Business Administration.
Previous positions include ABB, SEB and Capto
Financial Consulting.



**Bengt Lindefeldt** 

Head of Global macro management. Employed since 2008. Born 1962.

M.Sc.

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



Susan Lindkvist

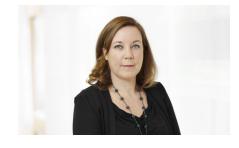
Director of administration.

Employed since 2013. Born 1960.

B.Sc Economics.

Previous positions include Avanza, Erik

Penser and RAM Rational Asset Management.



Ulrika Malmberg Livijn

General counsel.

Employed since 2009. Born 1968.

BSc. Law.

Previous positions include Lindahl, Setterwalls

and Skandia.

Director: Rikshem AB



Nicklas Wikström

Head of Performance, Risk and Control. Employed since 2008. Born 1968. Ms. in Accounting and Financing, CEFA, AFA. Previous positions include AFA Försäkring.

# **Glossary**

### ABSOLUTE RETURN TARGET

A targeted return intended to produce over time a positive return regardless of market trends. Contrast with a relative return target, for which the target is to outperform a specific index.

#### **ACTIVE MANAGEMENT**

Management of a portfolio with a composition that differs from the index in an effort to achieve a higher return. The opposite of passive management, or index management.

#### **ACTIVE POSITION**

Difference between a portfolio and its reference or benchmark index in terms of, for example, the weight of individual equities (on equity selection), sector weightings (with active sector allocation) or duration (with active duration position).

#### **ACTIVE RETURN**

The difference between the return on a portfolio and the return on its benchmark index. Active return is reported in the Fund's full-year and six-month reports. The term is used synonymously with return versus index, relative return, and outperformance.

#### **ACTIVE RISK**

Risk that results from active management. Defined as the standard deviation of the difference between actual performance and index performance (that is, the standard deviation of the active return). Also known as tracking error.

### **ALLOCATIONS**

Refer to Strategic allocations below.

## **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**

Bond that carries 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 relate to an annex to ISDA agreements. CSA agreements regulate how collateral is posted for outstanding liabilities in the form of cash or securities.

## **CURRENCY EXPOSURE**

Denotes the proportion of the portfolio denominated in a currency other than the Swedish krona and for which the currency risk has not been neutralized through hedging.

#### **CURRENCY HEDGE**

Neutralization of currency risk by converting exposure in foreign currencies to Swedish krona by 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.

#### DIVERSIFICATION

Diversification means the spreading of risks. In other words, assets having varying correlation with each other, thereby reducing the total risk in the portfolio.

## DURATION

A measure of interest rate risk. Defined as the percentage change in value of fixed-income securities as a result of a 1% parallel shift in the yield curve. Calculated by dividing the duration (see above) by one plus the market rate

#### 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 in Swedish kronor. The benchmark indices are customized government bond and corporate bond indices from Handelsbanken's and Bank of America Merrill Lynch hedged in Swedish crowns.

#### **FUNDAMENTAL ANALYSIS**

Analysis aiming to forecast a company's future value. Based mainly on information about companies and their environments, such as information about the companies' 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 the MSCI World. (Note that an equity listed on a Swedish stock exchange can be included in the global as well as the Swedish equities portfolio. At the time of purchase, the holding is assigned to the intended portfolio.) Foreign exchange derivatives are also managed in this portfolio. The benchmark indexes were MSCI North America, MSCI Europé and MSCI Pacific, adjusted for the Fund's current tax rate for each market and by excluding non-US REITs and currency- hedged to SEK. The index has also been adjusted from an ethical standpoint through exclusion of companies in accordance with the recommendations of the Ethical Council.

#### INDEX MANAGEMENT

Also referred to as passive management. Management of a portfolio so that the holdings mirror the composition of a designated index so the portfolio achieves the same returns 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 additional 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.

### **INVESTMENT ASSETS**

Used in this annual report to denote the Fund's total capital under management. In the balance sheet, however, investment assets are defined in accordance with generally accepted accounting principles. The principles require that buybacks, cash and equivalents, and derivatives with negative market value are recognized in the balance sheet but not as investment assets.

#### ISDA AGREEMENT

International Swaps and Derivatives Association. ISDA agreements relate to a standard agreement to regulate trading of derivatives between two counterparties.

#### LISTED PROPERTY PORTFOLIO IN STRATEGIC MANAGEMENT

Comprises equity and equity related securities listed on a Swedish or other Nordic exchange. The benchmark index was NASDAQ OMX SX8600GI.

#### LIQUIDITY RISK

Liquidity risks cover both liquidity risks relating 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 publicly quoted price.

#### **MARKET RISK**

Market risk is the risk that the value of an instrument is adversely affected due to fluctuations in share prices, foreign exchange rates or interest rates.

#### **MODIFIED DURATION**

Measure of interest rate risk. Defined as the percentage change in value of debt securities as a result of a one percent parallel shift in the yield curve. Calculated by dividing the duration (see above) with a change in interest rates.

#### **NORMAL PORTFOLIO**

The normal portfolio is a fictitious asset portfolio, a model portfolio, made up of different indices for each asset class. It consists of a combination of equities, government bonds and decisions regarding duration and foreign exchange exposure. Index choices for the asset class equities are MSCI North America, MSCI Europe, MSCI Pacific and MSCI Emerging Markets, adjusted for the Fund's current tax rate for each market as well as by excluding non-US REITs and currency-hedged to SEK. The index has also been adjusted from an ethical standpoint through exclusion of companies in accordance with the recommendations of the Ethical Council. The index for the asset class treasuries are customized from Handelsbanken's treasury index and Merrill Lynch treasury index, currency-hedged to SEK.

## **OPERATIONAL RISKS**

Operational risk is the "risk of loss resulting from inadequate or failed processes, people and systems or from external events." This definition includes legal risk.

#### PORTFOLIO RISK, EX POST

The standard deviation of the return on the portfolio during the period. Indicates the extent of fluctuations in the value of the portfolio and reflects the portfolio's risk level. See also Volatility.

### **REAL RETURN**

Return minus inflation.

### REFERENCE INDEX

Index against which a portfolio's return and risk are compared. Also called 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 equals the total percentage return for asset management overall or for a specific area.

#### STRATEGIC ALLOCATIONS

Medium-term deviations from the Normal portfolio's asset allocation, currency exposure, duration, etc. in order to improve the Strategic portfolio's returns and risk attributes.

#### SWEDISH EQUITY PORTFOLIO IN TACTICAL MANAGEMENT

Consists of equities and equity-based instruments listed on a stock exchange in Sweden or another Nordic country. The reference index was SIX 60.

#### SWEDISH EQUITY PORTFOLIO IN STRATEGIC MANAGEMENT

Consists of equities and equity-based instruments listed on a stock exchange in Sweden or another Nordic country. The reference index was SIX 60.

### SWEDISH SME'S IN STRATEGIC MANAGEMENT

Consists of equities and equity-based instruments listed on a stock exchange in Sweden or another Nordic country. The reference index is NASDAQ OMX Small Cap Sweden.

#### TACTICAL ASSET ALLOCATIONS

Active position-taking between different asset classes or regions, for example, to outperform an index.

#### 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**

Risk measure equal to the standard deviation of the return on an asset. Volatility indicates how much the return varies. Unless stated otherwise, standard deviation is measured using 12-month daily history.

# Swedish pensions

Swedish pensions are comprised of several parts: national pension, occupational pension and private savings. The pensions can be represented by a pyramid, where the national pension forms the base.



The Swedish state provides the **national pension** and it is administered by the Swedish Pension Agency. It consists of two parts, income pension and premium pension, both of which are based on an individual's income. Each month the employer pays in 18.5 percent of pensionable income to the state, where 16 percent is paid to the income pension system and 2.5 percent to the premium pension.

The national pension also includes so-called **guaranteed pension**. It is a basic protection to the persons entitled to a pension, but who have not had an adequate income. The guaranteed pension is financed by the state budget and is independent of the income and premium pension system.

The premium pension - 2.5 percent of the salary - allows the employees themselves to choose directly how it will be invested within the premium pension system. The governmental AP7 manages the premium pension for those who do not make their own active choice. The premium pension is governed by how the equity and fixed income markets develop.

Today, most employable people receive **occupational pensions** through their employer, often governed by collective agreements. In addition, employees can subscribe, individually, to a private pension.

## AP Funds in the pension system

Income pension is a 'distribution system' where the year's pension contributions paid by those who work are used to pay pensioners the same year. In return, those who are working receive something called pension entitlements. Current and expected future pension rights earned constitute the system's pension liability. Everyone's earned pension entitlements determine the size of the individual income pension received.

The system's assets consist partly of the so-called contribution assets (86 percent) and partly of the AP Funds' capital (14 percent). The contribution assets are calculated based on long-term forecasts regarding, among others, the number of employable people and income.

There will be an imbalance in the pension system if many employable people retire at the same time without new workers entering the labor market leading to fewer people employed than pensioners. This would mean pension contributions would not be sufficient to pay-out pensions. The AP Funds, which acts as a buffer to cover these imbalances, compensate for these imbalances that may arise between generations, which is why AP1- AP4 is often referred to as the pension system's so-called "buffer capital". The buffer capital is used to cover any deficits in pension payments.

AP6 differs from AP1-AP4 in that it is a closed AP Fund where capital is not either paid in or out. AP7 has a very different mission from the other AP Funds in that it manages premium pension capital.

# Pension System, net flows

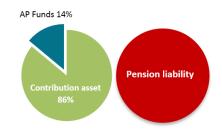
Since 2009, net flows in the income pension system have been negative, in other words payments to current retirees is greater than the contributions paid from today's wage earners. AP1- AP4 have therefore had annual outflows of capital to the pension system to bridge the generation gap that occurs when the so-called Baby boomers retire.

The Swedish Pension Agency has predicted that AP1-AP4 will need to contribute capital to the pension system during the next 20 years and more to cover future pension payments.

# The "Brake" balances pensions

The income pension is designed so that the capital will last over time and follows the income developments in Sweden. If the liabilities of the system should exceed its assets the so-called "brake" will be hit, or balancing - which is the real name. As such, income pensions are lowered when Sweden's economy slumps and are increased when the economy flourishes.

The increasing value of the AP Funds has contributed to that the automatic balancing mechanism has been avoided for several years. In connection with the financial crisis in 2008 and 2009 the "brake" point was reached. This was a result of severe economic- and employment-downturns and general declines in global equity markets.



# Fund governance report 2016

AP4 submits a Fund Governance Report each year comprising those parts of the Swedish Code of Corporate Governance appropriate for AP4.

AP4's Board of directors consists of nine members. All members are appointed by the government. Two members are appointed by proposal from the employees organization and two members are appointed by proposal from the employers organizations. The government appoints the chairman from among the other members. The Board is responsible for the organization and the management of AP4's capital.

On April 28, 2016 Sarah McPhee was elected new Chairman of the board after Monica Caneman.

On May 19, 2016 the Government recommended that all AP4's Board Directors be re-elected. These are Sarah McPhee, Chairman, Jakob Grinbaum, vice Chairman, Heléne Fritzon, Ing-Marie Gren, Sven Hegelund, Stefan Lundbergh, Erica Sjölander, Maj-Charlotte Wallin and Göran Zettergren.

The Board has delegated responsibility for day-to-day management to AP4's CEO, who has an Executive Management group of six employees to support the CEO in the decision-making process.

The Government appoints AP4's Auditors. The current audit mandate for 2016 is valid until the income statement and balance sheet for 2016 are adopted. The Auditors report to AP4's Board and to the Ministry of Finance. The Fund's Auditors have not examined the Fund Governance Report.

The 2016 Fund Governance Report can be read and downloaded at www.ap4.se.

# Investment rules according to law

Investment rules for the First - Fourth AP Funds are specified in law (2000: 192) National Pension Funds Act (AP Funds).

- Investments may be made in all listed and tradable instruments except commodity-related investments.
- At least 30 percent of the assets are invested in fixed income securities with low credit- and liquidity risk.
- Currency risk exposure may not exceed 40 percent of the assets.
- Exposure to a single issuer or group of related issuers may be no more than 10 percent of assets.
- Shares in listed Swedish companies may not exceed 2 percent of the market's total capitalization.
- Holdings should not exceed 10 percent of the voting rights of a single listed company.
- No more than 5 percent of the assets may be invested in unlisted securities. These investments must be made indirectly via venture capital companies or similar.
- Shares and participations in real estate companies may be directly owned.
- External managers should manage at least 10 percent of assets.



Sustainability is essential for creating the highest return over time. It contributes to safe pensions.

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