

Annual report 2020

AP4's mission is to contribute to the financial security of current and future pensioners by managing part of the Swedish national pension system's buffer capital.



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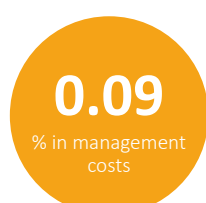
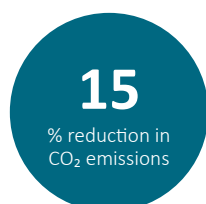


This is AP4

AP4 was originally established in 1974 to manage part of Sweden's public pension capital. At the time AP4 mainly invested in Swedish equities, but since the start of the new pension system in 2001, its investment assignment has broadened, and today AP4 invests in equities as well as in fixed income assets, both in Sweden and abroad. AP4 also invests in unlisted assets, such as property companies and infrastructure companies. During the first five years, from the start in 1974 through 1978, AP4 was

provided with a total of SEK 1.25 billion. In the years thereafter, from 1979 through 2020, additional capital has been provided to AP4, and AP4 has also made repayments to the pension system yearly. During the years 1979–2020 AP4 paid a net sum of SEK 43.9 billion to the pension system. Through the growth in value that has taken place over the years, AP4's fund capital has grown and amounted to SEK 449.4 billion at year-end 2020.

Good return during extraordinary year



- After a year dominated by the Covid-19 pandemic and exceptional market movements, AP4's return for 2020 was 9.6% (21.7%) after costs. The return before costs was 9.7% (21.8%).
- AP4's active management continued to be successful, and the active return for the year exceeded the return for AP4's benchmark portfolio by 2.4 percentage points (4.4), representing a positive contribution of SEK 10 billion (15) to profit for the year.
- The net result for the year was SEK 39.3 billion (75.2). A net total of SEK 7.9 billion (6.5) was paid from AP4's portfolio to the pension system.
- AP4's total fund capital amounted to SEK 449.4 billion at year-end 2020, compared with SEK 418.0 billion at the start of the year.
- Currency exposure was 21.0% of fund capital at year-end 2020, compared with 19.8% at the start of the year.
- AP4 reduced the carbon footprint of its investments in listed equities in the portfolio by an additional 15% in 2020. AP4 has cut the carbon footprint in half since 2010. The target is to once again halve the carbon footprint from the current level by 2030 with a view to have net-zero emissions by 2040 at the latest.
- Total costs on a full-year basis amounted to 0.09% (0.10%) of average assets under management. AP4 is highly cost-efficient, with a cost level that is roughly half of that for corresponding pension funds in an international comparison.

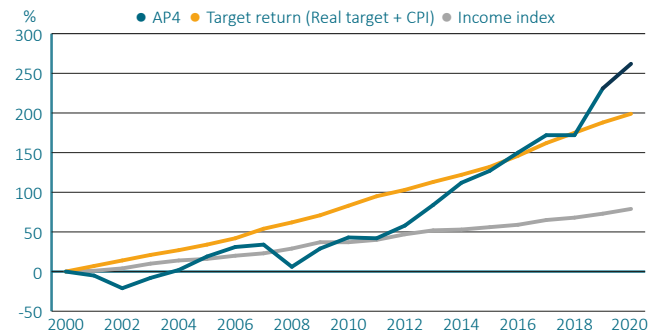
Figures for 2019 are shown in parantheses

Highlights 2020

AP4 has contributed to the stability of the pension system

AP4's return after costs was 9.6% in 2020. Since the start in 2001 AP4 has thereby exceeded the long-term real return target as well as the performance of the income index. The return after costs has averaged 6.7% per year, compared with an average of 5.6% per year for the required real rate of return and 3.0% per year for the income index. AP4 has thereby achieved its mission to contribute to the stability of the pension system. Going forward, however, the return is expected to be lower, and the long-term return target over 40 years has been lowered ahead of 2021, from an annual real return of 4.0% to 3.5%.

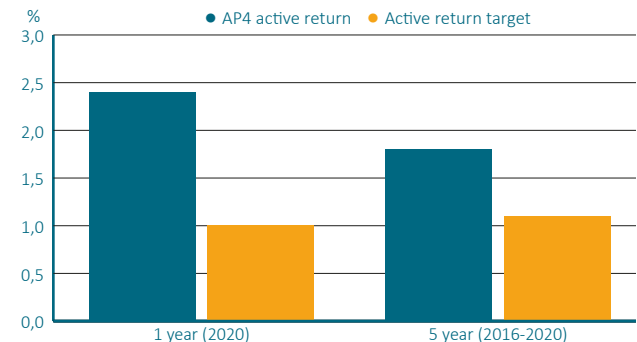
Return after costs since start in 2001



Active management contributing to result

AP4's active return was 2.4 percentage points higher than the benchmark index in 2020, which represents value added in the asset management of SEK 10.1 billion during the year. Measured over a five-year evaluation horizon, the active return was an average of 1.8 percentage points per year, which is higher than the active return target of 1.1 percentage point per year. In total, AP4's active return made an active result contribution of SEK 30.8 billion during the last five years. During 2020, management of the asset class Swedish Equities made the largest positive contribution to the active result. The other asset classes – Global Equities, Fixed Income Investments and Real Assets – also made positive, active return contributions in relation to AP4's benchmark, the Dynamic Normal Portfolio (DNP).

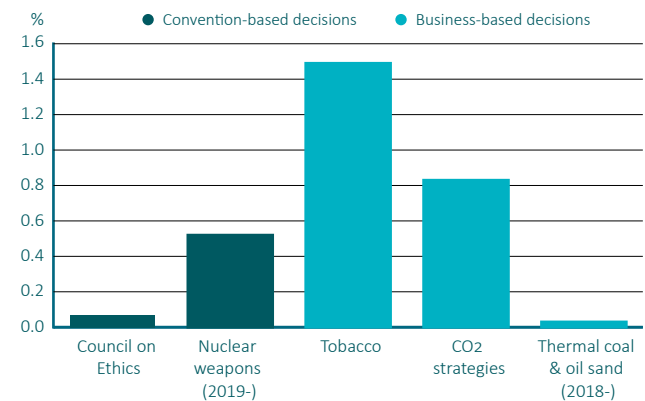
Annual active return before costs



Positive return contribution from sustainability positions

AP4 follows up the return impact of sustainability decisions in the portfolio over an evaluation horizon of five years, or from the start of a sustainability decision in cases where it pertains to a shorter time period than five years. The positive return contributions in the chart at right show that the effect of, for example, having excluded certain companies, has made a positive contribution to the global equity portfolio's return compared with a broad stock market index and vice versa. Convention-based decisions are based on AP4's interpretation of the Swedish state's core values and the conventions that Sweden has ratified. These decisions are therefore not business decisions in the sense that they are expected to contribute to the return. However, business-based sustainability decisions are expected to make a long-term contribution to AP4's portfolio.

Return contribution of sustainability decisions over 5 years*

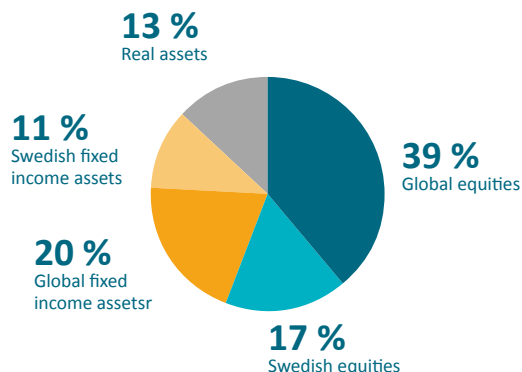


* Pertains to accumulated return over 5 years (or shorter period in cases where the decision pertains to a shorter period than 5 years).

High share of equities warrants a long-term high expected return

Every three years AP4 conducts a long-term analysis (ALM analysis) of the pension system's needs and required rate of return. Such an analysis was conducted in 2020 and showed, among other things, that a suitable long-term asset allocation continues to be in the range of 50%-70% of the portfolio.

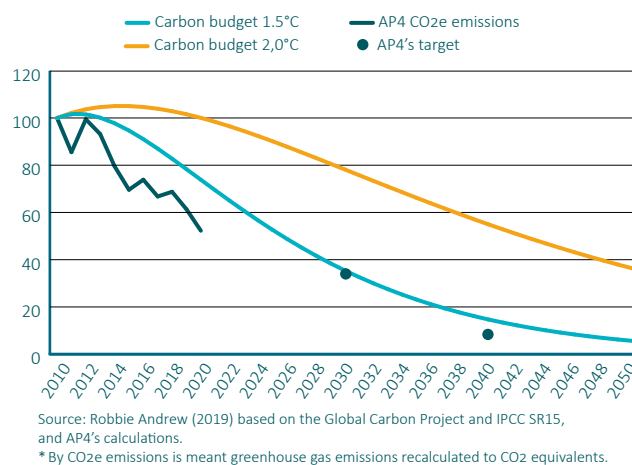
Asset allocation



Continued lower CO2e emissions in 2020

During 2020 AP4 further lowered climate risks in the portfolio. AP4 has implemented new, forward-looking data sources regarding companies' actions in relation to the Paris Agreement, which are now used for as a basis for decisions to divest holdings in companies in AP4's entire internally managed global equity portfolio. In addition, an internal group for fundamental thematic global equities management was built up during the year. As a first step the group analysed the energy sector, which led to an extensive restructuring of holdings in the portfolio. Companies whose plans and goals are not considered to be aligned with the Paris Agreement's goals have been divested from the portfolio. During the year, AP4 increased its investments in sustainable infrastructure including renewable energy, which is making a positive contribution to the climate transition.

Annual CO2e emissions* (index 2010=100)



AP4 has taken responsibility as owner

In response to the Covid-19 pandemic and the uncertainty it has created for companies' performance, AP4 has taken its active owner responsibility and conducted proactive dialogues with companies and owner groupings. This resulted in AP4's participation in several new issues to support long-term sound companies. AP4 also took advantage of the temporary opportunity created by a Swedish Parliament decision in 2020 to allow the AP Funds, in connection with new issues in listed Swedish companies, to acquire up to 15% of the voting stock.

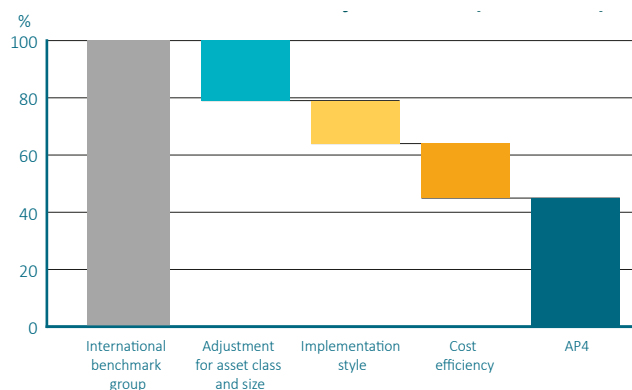
Key data, corporate governance

Number of Swedish company nomination committees	39
Number of Swedish company AGMs	109
Share of women among newly elected board members	44%
Number of foreign company AGMs	1,043
Number of investment committees and boards in unlisted investments	55

AP4 is highly cost-efficient

AP4's cost level is considerably lower than comparable international pension funds, as shown by an analysis conducted by CEM Benchmarking for 2019. AP4 has a sufficiently high level of fund capital to conduct cost-efficient asset management and an asset allocation focused on asset classes that are less cost-intensive to manage. The lower cost level can also be credited to AP4's implementation style, mainly with a larger share of internal management than other pension funds. AP4 is also cost-efficient by paying lower costs for corresponding services than what other pension funds do, such as management fees. This makes AP4's cost level roughly half of what it is for the comparison group.

International cost comparison



Covid-19 and exceptional market movements

With the pandemic impacting society in many different ways, 2020 was an extraordinary year during which we were forced to deal with an historically challenging economic environment at the same time that we very swiftly transitioned to working virtually and remotely. Outside of work, too, society has had to adapt, as people can no longer interact socially in the same way as before. Many around us have also personally been affected by Covid-19.

Even though it now feels like ancient history, the year started out with positive macroeconomic development and showed signs of a recovery following a weak 2019. The relatively positive start to the year abruptly changed to panic during the month of March. We saw the stock market plummet as cases of Covid-19 spread across Europe and the USA. The New York Stock Exchange S&P 500 index fell 34%, and the Stockholm Stock Exchange index declined by as much as 30% from its top levels in the month of February.

The initial force of the impact on the real economy in spring 2020 was brutal. The speed and depth of the economic slow-down vastly exceeded what we saw during the financial crisis, for example. Overall the political system acted quickly and forcefully in response to the pandemic – first, by implementing various restrictions to slow the spread. Then, to counter the negative consequences of restrictions, governments and central banks began at an early stage to introduce various types of support measures. During the year these financial and monetary policy programmes grew more extensive and are today historically large. Owing to the combination of strong support and stimulus measures, gradually improved control over spread of the virus, steadily improved knowledge about Covid-19 and the successive easing of restrictions, the financial markets recovered significantly after the drops in March.

In autumn 2020 we saw the start of a second wave of the pandemic, with rapid and extensive spread that continued through the end of the year with undiminished strength. The second wave of the pandemic also entailed the reimposition of new and successively more extensive restrictions. However, internationally the restrictions imposed during the autumn were more targeted than those in the spring and thus far have not been as devastating for the world economy, even though certain sectors have been hit very hard. The record-fast development of vaccines and the seasonal pattern of the virus have nevertheless injected some hope into this very difficult situation.

With successful mass vaccinations as we approach the warmer season of the year, hopefully a normalisation can begin at least some time into spring 2021.

Reflecting back on 2020, it is impossible to ignore the fact that the year entailed quite a bit of political turbulence, which was essentially conveyed in real time via social media. Of course, quite a bit of this was also coupled to the pandemic. Despite this, perhaps most remarkable was the highly unusual events that unfolded following the presidential election in the USA. A type of rhetoric has been used, propagated by conspiracy theories, which is reminiscent of interwar period in Europe and the collapse of the Weimar Republic. That we would experience something similar in the world's bastion of democracy is both shocking and horrifying.

"The rapid development of vaccines combined with an expectation for continued stimulus measures offers hope for a continued economic recovery in 2021."

On the whole, however, thus far the dramatic events in 2020 have caused considerably less damage to the Swedish as well as the international economy than what most forecasts suggested last spring. The rapid development of vaccines combined with an expectation for continued stimulus measures offers hope for a continued economic recovery in 2021.

Looking back on the overall changes in asset prices during the full-year 2020, it is quite astonishing given the extreme events that we have been through. An example of this is the growth in the value of AP4's asset portfolio. We entered 2020 with a portfolio value of SEK 418.0 billion and ended the year with a portfolio



value of SEK 449.4 billion (and on top of this, during the year AP4 paid out SEK 7.9 billion to the pension system). On the surface it could appear as a calm year with favourable returns. But this couldn't be further from the truth!

Structural changes and intensified trends

Following such an historically dramatic economic slowdown that we experienced in 2020, it is natural to expect a significant rebound in 2021. Setting aside the major fluctuations in GDP, the long-term key question is if the pandemic will cause structural and permanent harm to the world economy, and if so, how great this will be. In response to this question, undoubtedly there is no shortage of dark clouds looming, including the risk for permanently high unemployment, a new crisis in the financial system, a stalling of globalisation, increased regional tensions and dramatically higher levels of debt that could pose future structural problems. On the other and more positive side of the scale are factors that, over time, may strengthen the economy's way of functioning and productivity. Examples of such factors are the acceleration of digitalisation, investments in neglected infrastructure, the transition to a sustainable society and the potential for positive structural reforms. Ultimately much will be determined by the extent to which the resources that will be invested in restarting the world's economies can be steered to long-term productivity improvements, and whether the leading economies can continue to embrace the belief in the benefit of global cooperation and global economic collaboration. Our current assessment is that the pandemic will certainly leave some hard to heal wounds on the world economy, but that they won't necessarily be as problem-

atic over the long term as those left by the financial crisis. The financial crisis was caused by a meltdown of the world's banking system with an essentially defunct credit system for a long time, which parts of Europe have still not recovered from.

Strong result based on long-term asset management

AP4 commendably navigated the exceptionally turbulent market situation during 2020 and generated a return of 9.6% after costs. Active management also continued to be successful and made a return contribution of 2.4 percentage points above the benchmark index for the year.

"AP4 commendably navigated the exceptionally turbulent market situation during 2020 and generated a return of 9.6% after costs."

AP4's favourable historical result is due in large part to its ability to leverage the large latitude that exists in the buffer funds' statutory mandate. Thus for example the buffer funds have unique conditions to act long-term and thereby have the opportunity to fully take advantage of the potential in investments through their ability to withstand large market movements and low liquidity where it favours long-term returns. It is precisely this ability to act long-term that has been an enormous asset for us in the very

difficult, disordered and turbulent market that we experienced during the first half of the year. For example, we began buying equities in connection with the first major drops to maintain our asset allocation. We also had conditions to invest in corporate bonds when prices of these fell indiscriminately in March, when the market in its hysteria could not manage to differentiate between the various issuers.

Our long-term approach also gives us conditions to act as a stable and responsible owner, which is always important, especially during such an extremely difficult and uncertain situation as that created by the pandemic. We took our responsibility such as by engaging in proactive dialogues with companies and with owner groupings on companies' needs for capital, which resulted in AP4's participation in several new issues to support long-term sound companies. It is also gratifying that the Swedish government and Parliament, in response to the extreme situation, showed flexibility by temporarily allowing the AP Funds to acquire higher maximum ownership stakes in Swedish companies in order to better be able to support them during this difficult period. Up until summer 2021 the AP Funds may now own up to a 15% stake – previously 10% – which gives us better opportunities where needed to support the companies in which we are a long-term major owner.

AP4's contribution to the climate transition

Climate change is one the greatest challenges of our time, and AP4 underpins its asset management activities on the Paris Agreement and the more ambitious Swedish environmental objective to achieve net-zero greenhouse gas emissions by 2045. Our low-carbon strategies, which we began implementing as far back as 2012 and have subsequently developed year for year since then, took additional steps in 2020. One challenge we encounter in refining our methods is access to data of sufficiently good quality. Up until last year we were forced to rely only on historical data that has not always been pertinent. In 2020 it became possible for us to complement our models with data that is more forward-looking and thereby has the potential to significantly increase our ability to forecast. More specifically, our strategies for selecting companies in the global equities portfolio now also include data on whether the companies are considered to be aligned with the Paris Agreement and on their ability to manage pricing of carbon emissions. During 2020 we also broadened our application of low-carbon strategies to our entire internally managed global equities portfolio. This means that the target we set in 2015 ahead of the Paris summit – that the entire global equities portfolio would be managed based on strategies that result in a lower carbon footprint – has now been achieved.

During 2020 AP4 also built up an internal group for fundamental thematic global equities management. Based on AP4's thematic sustainability analysis and quantitative company analysis, this group conducts fundamental company analyses and equity selections in AP4's global equities portfolio. In an initial step the energy sector has been analysed, which has resulted in an extensive restructuring of that sub-portfolio.

Ensuring that the currently ongoing climate transition will be implementable over the long term requires that it is possible to unite societal and economic development that is perceived to be socially acceptable. Responsible use of fossil fuels within the framework of the remaining CO₂ budget – mainly conventional oil

and natural gas – will therefore continue to be a precondition for a successful transition to a climate-neutral society. It is for this reason, among others, that AP4 continues to have a certain level of ownership in fossil fuel-based companies. However, we put strict demands on the fossil-based companies we own.

They must conduct their operations with targets and ambitions that are deemed to be compatible with a transition according to the Paris Agreement and also preferably have a substantial and growing share of investments in renewable energy production. The latter is important, as several fossil fuel-based companies in the future will be among the largest investors in the world in renewable energy and will thereby be positioned to play a key role in the climate transition. With considerably more concentrated ownership in energy companies, we will also be able to further intensify our active ownership initiatives to contribute to ensuring that the positive development continues in the companies that we have ownership in.

"During 2020 AP4 built up an internal group for fundamental, thematic global equities management."

With said measures, during 2020 AP4 reduced the carbon footprint in its holdings by 15%, which represents yet another step in the long-term work we have been conducting since 2012 to reduce climate risk in our portfolio. We have cut carbon emissions in half from our investments in equities, which are now less than half of what they are for a broad global equities index. Our target is to once again halve the carbon footprint from the current level by 2030 with a view to have net-zero emissions by 2040 at the latest. Our historical reduction of the carbon footprint and our targets are more ambitious than those set out in the Paris Agreement.

Continued strategic focus on alternative investments, sustainability and an updated system platform

AP4 conducts cost-efficient asset management – something that was once again noted by the yearly international cost comparison conducted by CEM Benchmarking. We have a sufficiently high level of funds under management to be able to effectively leverage the economies of scale that exist in asset management without for that part having so much capital that it limits our flexibility. AP4's cost level is only about 45% of the average level among a relevant international comparison group of similar pension funds. We achieve cost efficiency through our implementation style involving mainly internally managed assets, but also on account of the fact that AP4 has lower costs for corresponding services, such as asset management fees, than the pension funds in the comparison group.

AP4 thus conducts efficient asset management and will also continue to maintain a strong focus on keeping its costs down as much as possible. Despite this, we are now currently in a phase in which we are conducting initiatives in three strategically and entirely necessary areas. In 2019 the AP Funds were given new investment rules which allow for a larger share of investments in unlisted assets. We are therefore in the midst of a process in



which we are adding competence and resources to this area as well as increasing the pace of investment particularly in real assets such as sustainability-promoting infrastructure. We are also strengthening our resources in sustainability. One example of this is the aforementioned focus on thematic, global equities management, however, additional resources are also needed to remain at the forefront in areas such as sustainability reporting and advocacy work. Finally, we also need to make further investments coupled to the modernisation of our IT platform and digitalisation of our operations.

Awards for AP4

As I mentioned from the onset, 2020 was in many ways an historically challenging year that put a great strain on everyone as individuals and for most professional categories. For us at AP4, the changes in value that took place in the portfolio were jaw-dropping and also clearly underscored the very extreme conditions under which we handled the continuing management of AP4's portfolio. On top of a difficult asset management assignment combined with our swift adaptation to remote and virtual ways of working, we also managed to strengthen parts of our operations. During the year we conducted meaningful development initiatives and important projects throughout our organisation.

Seeing the results of our annual employee survey made me very happy and proud. It showed good progress and very positive

results overall as well as for the various parts of our operation. The strong outcome is a favourable assessment of the entire organisation and all of AP4's employees, but also proof that we handled the tumultuous 2020 in a commendable way. We have all had to adapt and develop our ways of working and meeting forms, and actively contributed to a high level of engagement and energy level.

Further confirmation of our solid work can be found in the five awards that we won at the 2020 IPE Conference & Awards. AP4 has won many fine awards over the years, which helps inspire and motivate us to continue being a global model for pension funds. It is we together who generate our favourable results, and I feel very privileged to work for AP4.

In closing I therefore want to offer my warmest thanks to all of AP4's employees, who successfully worked together in 2020 for our societally essential mission at the same time that we worked intensively to adapt our operations to future challenges.

Stockholm, 18 February 2021

Niklas Ekvall
CEO

Portfolio performance

Five-year overview, fund capital, return, risk, other key ratios	2020	2019	2018	2017	2016
FUND CAPITAL, FLOWS AND NET RESULT, SEK BILLION					
Fund capital	449.4	418.0	349.3	356.6	333.9
Net flows to the pension system	-7.9	-6.5	-6.8	-7.4	-6.6
Net result for the year	39.3	75.2	-0.5	30.1	30.5
RETURN, %					
Return, total portfolio before costs	9.7	21.8	-0.1	9.2	10.1
Return, total portfolio after costs	9.6	21.7	-0.2	9.1	10.0
Return, total portfolio after costs, annualised 5 yrs	9.8	9.3	8.1	11.5	12.0
Return, total portfolio after costs, annualised 10 yrs	9.7	9.9	9.9	7.3	6.7
Active return, before costs ^{1,2}	2.4	4.4	2.3	-1.1	1.0
Inflation	0.5	1.8	2.0	1.7	1.7
Real return after costs	9.1	19.9	-2.3	7.4	8.3
RISK, %³					
Standard deviation ex-post, Total portfolio	13.6	5.3	6.4	4.1	7.3
Standard deviation ex-post, Liquidity portfolio ⁴	15.6	5.8	7.0	4.5	7.8
Standard deviation ex-post, Total portfolio, 10 yrs ⁵	8.3	6.7	7.5	8.6	8.8
Sharpe ratio total portfolio, ex-post	0.7	4.2	0.1	2.5	1.5
Sharpe ratio liquidity portfolio, ex-post ⁴	0.7	3.9	neg	2	1.2
Active risk ex-post, active management ⁶	1.7	1.2	1.5	1.7	2.7
Currency exposure, %	21.0	19.8	18.4	18.4	26.9
ALLOCATION OF INVESTMENTS, %^{7, 8}					
Global equities	39.6	39.3	38.9	40.8	40.2
Swedish equities	16.7	15.6	14.6	16.6	17.6
Global fixed income	20.0	21.0	22.0	21.1	22.7
Swedish fixed income	10.6	11.4	12.2	11.6	10.6
Real assets	13.1	12.7	12.1	9.6	8.6
Other	0.0	0.0	0.3	0.3	0.3
TOTAL INVESTMENTS, %	100.0	100.0	100.0	100.0	100.0
Of which, share of external management incl. investments in private equity companies, % ⁹	14.4	14.7	16.2	17.0	22.7
SUSTAINABILITY DATA					
Total CO ₂ emissions for listed equities (million tCO ₂ e)	1.8	2.2	2.4	2.4	2.6
Portfolio-weighted carbon intensity for listed equities (tCO ₂ e/SEK m)	8.7	10.3	14.3	15.3	-
Number of nomination committees	39	39	33	30	27
Share of women among newly elected board members, AP4 on nomination committee, %	44	44	39	52	39
Number of Swedish company AGMs	109	87	90	73	100
Number of foreign company AGMs	1,043	1,025	971	896	798
OPERATING EXPENSE RATIO AS % OF AUM (ANNUALISED)					
Operating expenses	0.06	0.06	0.06	0.06	0.06
Operating expenses and commission expenses	0.09	0.10	0.10	0.10	0.10

¹ AP4's operative portfolio is evaluated against a benchmark portfolio made up of a number of market indexes with set asset weights. The market indexes used are standardised and currency-hedged to SEK in order to simplify and increase transparency. AP4 can use its tax status as a state pension fund, and during 2020 this gave a positive contribution of 0.18 percentage points (0.22).

² Active return, calculated as the difference in returns between the operative portfolio and the benchmark portfolio.

³ Pertains to daily return data unless indicated otherwise.

⁴ Pertains to liquid assets excluding unlisted property companies, private equity funds and high-yield fixed income securities.

⁵ Pertains to quarterly data for total assets.

⁶ Active risk, calculated as standard deviation, measured on a yearly basis, in the difference in the return between the operative portfolio and the benchmark portfolio.

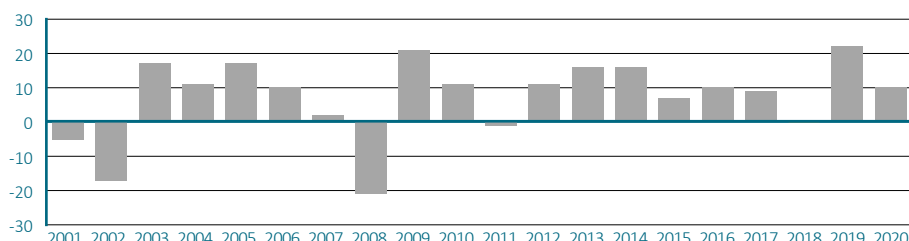
⁷ Pertains to exposure; underlying derivative values in the passive allocation have been distributed among the respective asset classes.

⁸ "Other" mainly includes mandates without capital.

⁹ Wholly or partly owned property companies are reported as internally managed.

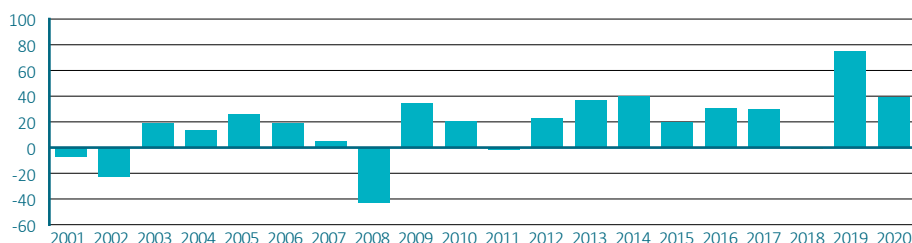
AP4's performance since 2001

Annual return after costs (%)



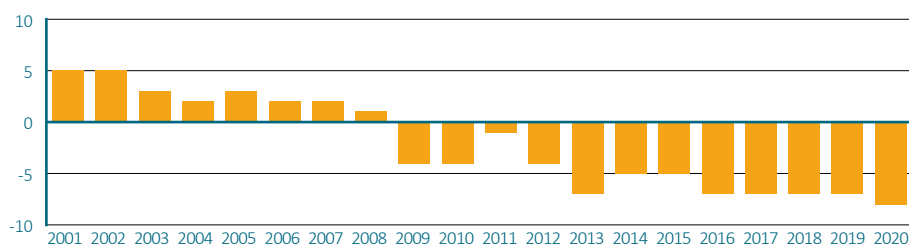
AP4's average annual return after costs has been 6.7% since 2001. The return has varied over time as a consequence of the significant equity exposure that AP4 considers to be necessary for achieving its long-term return target.

Annual net result (SEK billion)



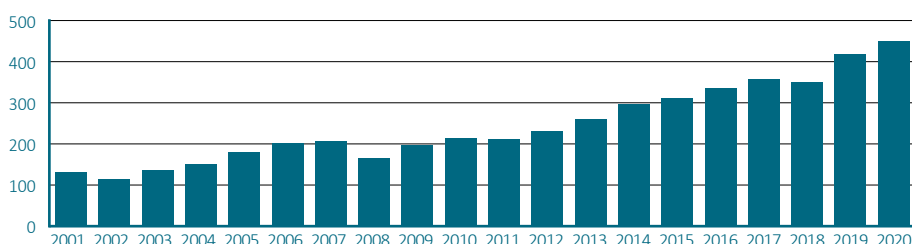
Following the record year 2019, AP4 continued to generate good results in 2020. The result for 2020 can be credited to the good return mainly in the stock market, but also to the favourable return for fixed income investments during the year. Despite a slightly lower percentage return for 2020 than in the last ten years, in terms of SEK billions the result was at a comparable level owing to a higher opening portfolio value, entailing that a given percentage return generates a higher result.

Yearly net flows to the pension system (SEK billion)



Since the start of the new pension system in 2001, net payments from AP4 to the pension system have totalled SEK 43.9 billion. During the first eight years AP4 received net inflows from the pension system, but since 2009 AP4 has made net payments to the pension system. These net payments to the pension system amounted to a combined sum of SEK 65.1 billion from 2009 to 2020.

Closing fund capital (SEK billion)



AP4's closing fund capital increased from SEK 134.0 billion at the start of the system in 2001 to SEK 449.4 billion at year-end 2020. This increase in fund capital took place at the same time that a net sum of SEK 43.9 billion was paid out to the pension system.

AP4 and the pension system

AP4's mission in the pension system is to contribute long-term to the financial security of current and future pensioners by managing part of the Swedish national pension system's buffer capital.

AP4's role in the national pension system

AP4 is a state agency whose operations are governed by the Swedish National Pension Funds Act (*Lagen (2000:192) om allmänna pensionsfonder*). AP4's mission is to manage part of the buffer capital in Sweden's income pension system in an exemplary way through responsible investments and responsible actions and thereby generate the greatest benefit for the pension system. The total buffer capital that is managed by the AP Funds makes up approximately 15% of the pensions system's assets. The remaining 85% consists of the so-called contribution assets, which can be regarded as the present value of future, expected social security contributions. A favourable return on the fund capital contributes to a strengthening of the pension system and ensures that promised pensions can be paid out.

The pension system's various components

The pension system is made up of several parts:

- national public pensions, comprising two parts – income pension and premium pension,
- occupational pensions, which are paid by employers, and
- voluntary private savings.

Breakdown of paid-in contributions and disbursements

Everyone who has worked in Sweden receives a national public pension, which is based on their total income throughout their working life. The national public pension system's two parts, income pension and premium pension, are both income-based and entail that every year 18.5% of a person's pensionable income is allocated to the pension system. The contribution is made by the employer and from the national public pension fee that wage-earners pay, where 16 percentage points are contributed to the income pension and 2.5 percentage points are contributed to the premium pension. AP4 is part of the income pension system together with AP1, AP2, AP3 and AP6. AP7 is part of the premium pension system.

Income pension is a pay-as-you-go system where the year's pension contributions paid by the actively working population are used to pay pensions to pensioners during the same year. During the years each individual is working, money is paid into the pension system, and at the same time pension rights are earned. Paid-in pension contributions are based on income and other taxable remuneration, and provide a pension entitlement. These pension rights are normally indexed upward every year in parity with the average income growth (the so-called income index). In such way, paid-in pension contributions are linked during a person's working life to the right to receive a pension in retirement. In the second part, premium pension, pension savers

have a say in which securities funds their money is invested. A substantial share of premium pension capital is managed by AP7, where savings are invested unless each individual actively chooses otherwise.

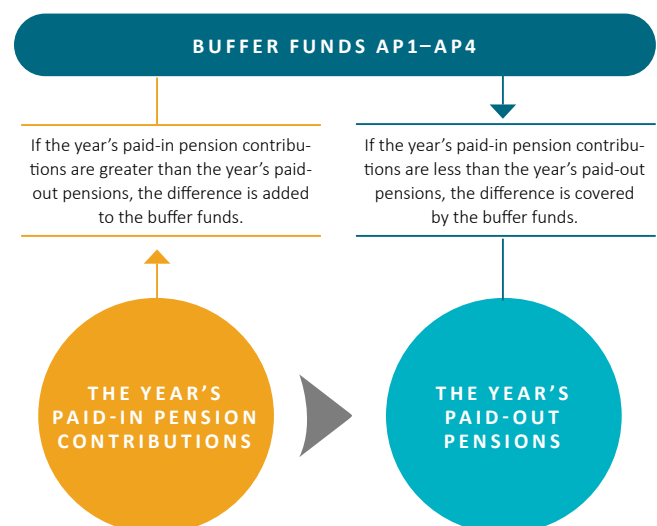
Bridging generation gaps

Most of the pensions paid out to current pensioners during a given year come from the pension contributions that are made during the year from people who are working today. If the year's contributions to the income pension system from people who are actively working are less than the year's pension disbursements, a deficit arises. This deficit is covered by taking funds from the AP Funds' managed buffer capital, and the opposite applies if contributions are larger.

The pension system is designed to withstand this, which means that no generation receives a higher pension at the cost of another generation.

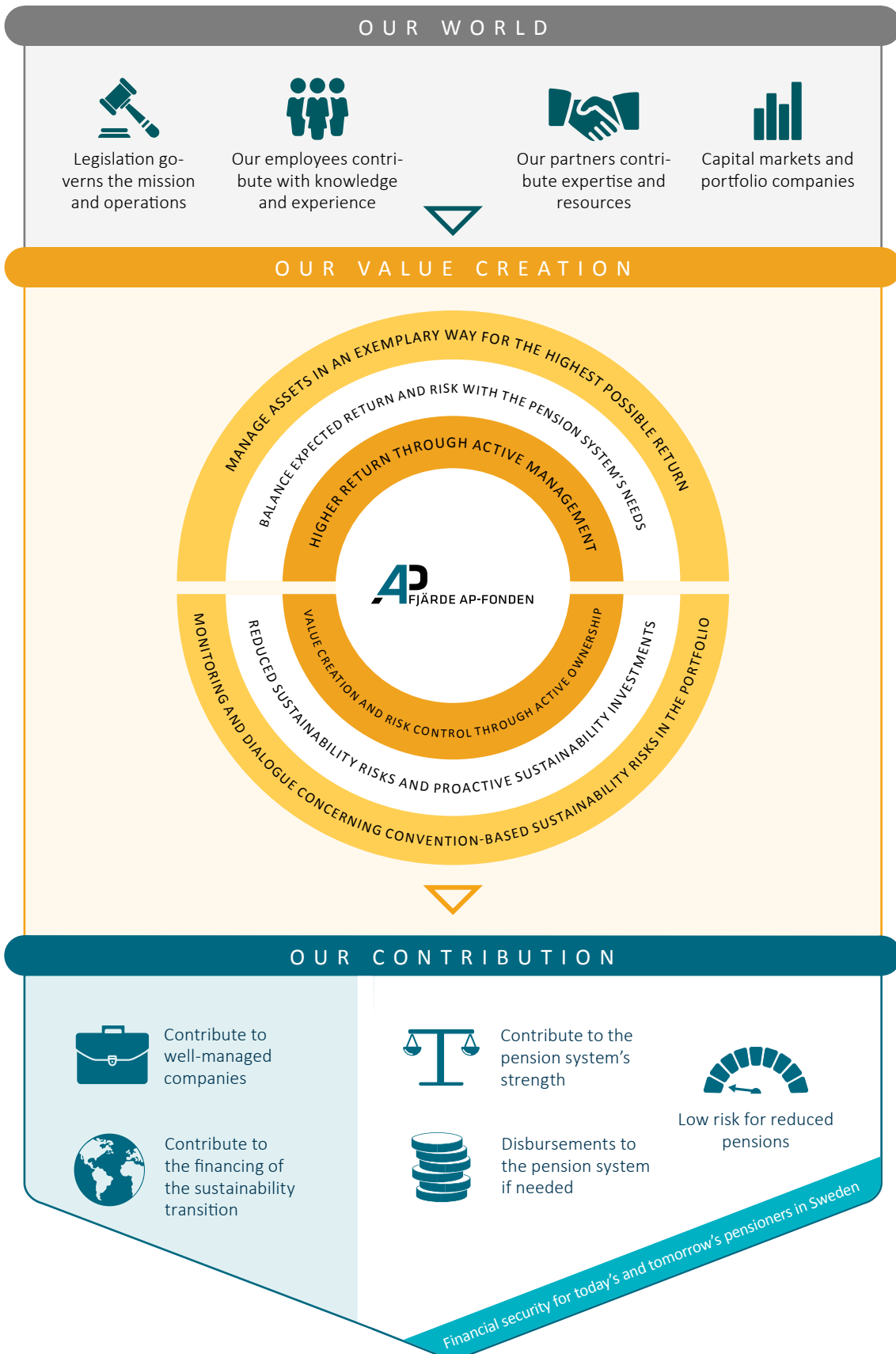
Since 2009, when the AP Funds became net payers to the pension system, AP1-AP4 have together paid out a net total of SEK 260.5 billion to the pension system through 2020. These net payments from the AP Funds have been made mainly because of demographic factors, such as the considerable number of people born during the 1940s, which means that there are many pensioners today. Net payments to the pension system are expected to continue for another some 20 years. Thereafter, the AP Funds are expected to receive net inflows.

If the pension system comes into a financial imbalance, i.e., its obligations become larger than its assets, an automatic balancing mechanism is activated. Through this balancing, income pensions for current pensioners would be indexed upward at a slower pace as long as the assets are lower than the pension obligations.



Our mission in a complex world

With a starting point in the external operating environment that AP4 works in, long-term, exemplary asset management is conducted which contributes to the pension system and society in general.



Stakeholder dialogue and materiality analysis

Engaging in a dialogue with the AP Funds' stakeholders provides guidance to the Funds in their sustainability work. To learn about how stakeholders view the Funds' mission and operations in relation to sustainability and returns, AP1, AP2, AP3 and AP4 – together with the Council on Ethics of the Swedish National Pension Funds (the Council on Ethics) – conducted a stakeholder dialogue in 2020.

The dialogue was conducted in the form of a web-based survey that was sent to more than 200 people within the AP Funds' stakeholder groups. The stakeholders consisted of principals (the so-called Pensions Group, the finance and social insurance committees, and the Ministry of Finance), portfolio companies, vendors, industry colleagues, beneficiaries, society in general (labour market parties, universities and the Swedish Pensions Agency), interest organisations and employees.

Overall, the web-based survey showed that the stakeholders have relatively good awareness about the AP Funds' operations and are highly confident that the AP Funds are living up to their mission to provide long-term returns and conduct responsible asset management. The stakeholders have high confidence in the AP Funds' work with, and integration of, sustainability matters in the asset management. The results also showed that the AP Funds can be better at managing and communicating sustainability-related risks and opportunities in their investments. On this point, the survey highlighted the importance that the AP Funds work for the climate transition in Sweden and internationally through cooperation with other actors.

Prioritised sustainability areas

The stakeholders ranked 12 selected sustainability areas based on how important they believe the respective areas are for the AP Funds to consider in their asset management and in their

corporate governance work with respect to portfolio companies. Five areas were considered to be equally important for the stakeholders:

- Business ethics
- Climate
- Human rights
- Anticorruption
- Long-term return

These five areas were followed, in declining order, by: the environment, transparency in companies, working conditions, sustainable supply chain, biodiversity, diversity and equality, and information security. Several stakeholders noted that the AP Funds' sustainability work should be characterised by a holistic perspective and that all areas are important in the AP Funds' overall sustainability work. Prioritisation of sustainability work should be conducted based on the type of company, sector and location. The stakeholders expressed that the AP Funds can develop their communication through greater transparency and greater visibility in the debate. At the same time, the results showed that the stakeholder groups took in available information to a relatively low degree. In addition, they felt that regularly recurring dialogues with actors in the general business environment are important for conducting a value-creating change process. The AP Funds intend to follow up the results with selected stakeholder groups. The aim is to gain a better understanding of the stakeholders' views in central development areas. This work is continuing in 2021.

AP4's sustainability work is based on the AP Funds' joint guidelines for reporting on how the goal of exemplary asset management has been achieved. AP4 strives to adhere to the sustainability reporting guidelines set out in the Annual Accounts Act and the GRI Standards. Sustainability reporting is presented on pages 11–40 of this report as well as in the GRI Index and TCFD table on pages 72–76.

Auditor's opinion regarding the

Fourth Swedish National Pension Fund's sustainability report

For the Fourth Swedish National Pension Fund, corporate identity number 802005-1952

Engagement and responsibility

It is the Board of Directors who is responsible for the sustainability report for the year 2020 and that it has been prepared in accordance with the Fourth Swedish National Pension Fund's principles for sustainability reporting.

The scope of the audit

Our examination has been conducted in accordance with FAR's auditing standard RevR 12. The auditor's opinion regarding the statutory sustainability report. This means that our examination of the sustainability report is substantially different and less in scope than an audit

conducted in accordance with International Standards on Auditing and generally accepted auditing standards in Sweden. We believe that the examination has provided us with sufficient basis for our opinion.

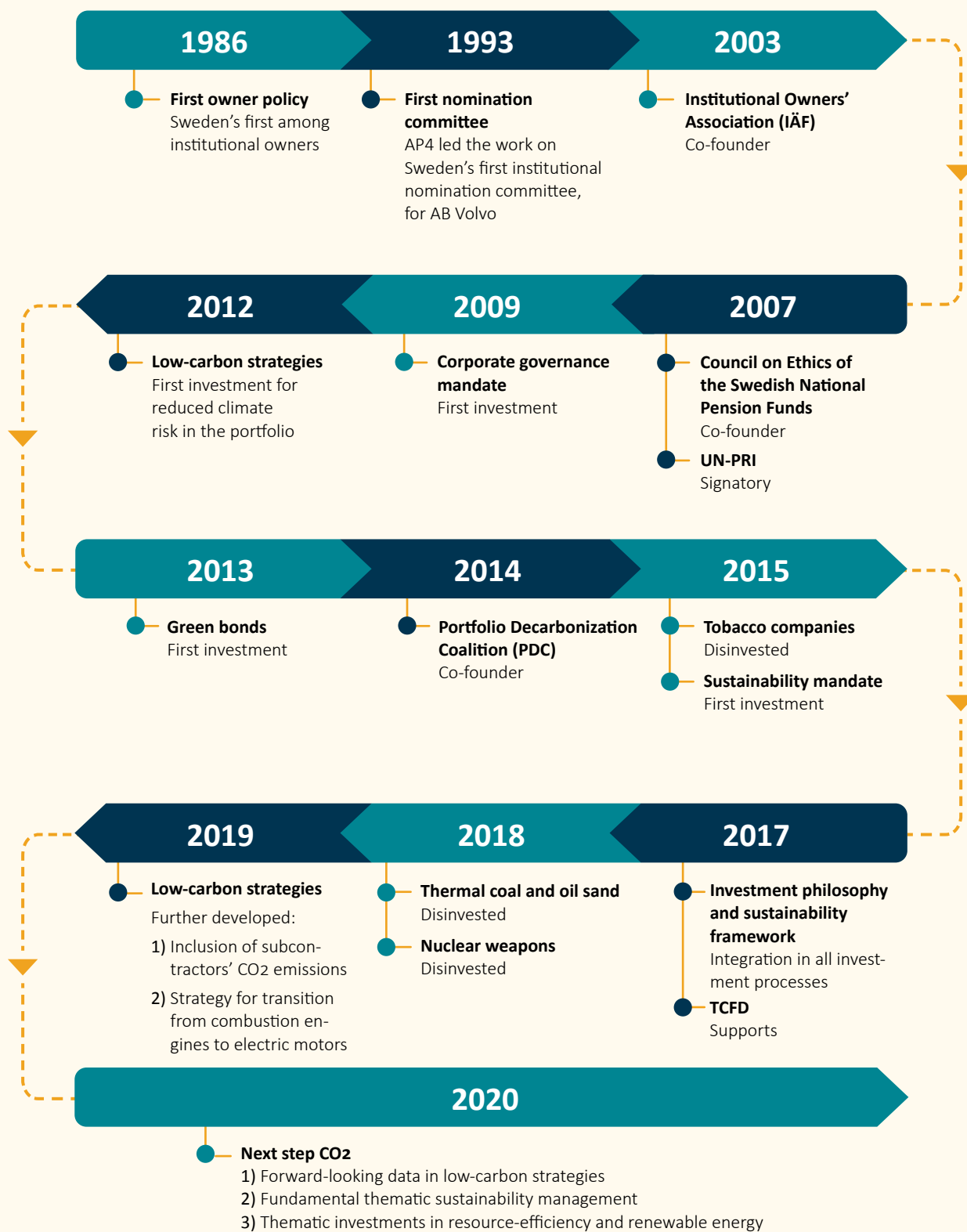
Opinion

A sustainability report has been prepared. Stockholm, 18 February 2021

Peter Nilsson
Authorised
Public Accountant

Helena Kaiser de Carolis
Authorised
Public Accountant

AP4 has a long history of sustainability work



Asset management structure integrating sustainability

AP4 works systematically in several steps to design a portfolio that optimally balances expected return and risk with the pension system's needs. Financial and sustainability-related analyses are made with time horizons of varying length and are woven together into decision-making documentation in the various steps of the portfolio construction.

THE PENSION SYSTEM'S LONG-TERM NEEDS

AP4'S BENCHMARK PORTFOLIO

Description	Assessment of the pension system's long-term needs for returns and net payments from the AP Funds, structural conditions for macroeconomic growth and expected long-term return.	Medium-term analysis with a ten-year perspective which in greater details considers the prevailing and expected macroeconomic situation and dynamic as well as market assessment based on this shorter perspective.
Analysis horizon	Up to 40 years	5-15 years
Frequency	Conducted every three years	Yearly
Responsibility	Board decides	Board decides
Result	<ul style="list-style-type: none"> The combination of expected return and risk that best contributes to a strengthening of the pension system is strengthened without one generation benefiting at the expense of another. In 2020 the long-term real return target was lowered from 4% to 3.5% per year, effective as from 2021. Risk scope in the form of an interval for equities trading, currency exposure and fixed income portfolio's average duration. 	<ul style="list-style-type: none"> Decisions on the Dynamic Normal Portfolio (DNP), a benchmark portfolio consisting of a market index. Medium-term real return target (3% per year measured over 10 years). Active return target (1% per year measured over 5 years). Active risk scope (tracking error) for operative portfolio to deviate from the DNP (5%).

ALLOCATION

MANAGEMENT OF DELEGATED MANDATE

Description	Strategic and tactical allocation decisions between various asset classes. The allocation function is also responsible for managing continuing operations between asset classes and currency exposure caused by market movements.	Based on the delegated asset management mandate, to continuously analyse and carry out investments that are judged to meet AP4's requirement for long-term sustainable return.
Time horizon	1-5 years	0-5 years
Frequency	Quarterly, monthly or as needed	Continuously
Responsibility	CEO and CEO-delegated mandates	CEO and CEO-delegated mandates
Result	<ul style="list-style-type: none"> Broadening of the DNP to other asset sub-classes, such as credits. Allocation to illiquid assets. 	<ul style="list-style-type: none"> Operative management of delegated asset management mandate. Individual investment decisions in e.g., equities, bonds and illiquid investments.

Climate scenario analysis and thematic sustainability analysis affect overall allocation as well as management of delegated mandates. AP4 integrates sustainability in all investment processes by, among other things, reducing climate risks, investing in trends and influencing as an owner.

	CLIMATE SCENARIO ANALYSIS	THEMATIC SUSTAINABILITY ANALYSIS
Description	Analysis of the climate transition and its potential impact on supply and demand, and by extension, also on expected growth and inflation. The starting premise for AP4's climate scenario analysis is achievement of the Paris Agreement's goals, which entails a relatively rapid climate transition.	Identify sustainability trends, their strength and time perspectives with the goal to understand which value chains are affected, identify winners and losers, and by extension to find attractive investment themes for AP4's operative asset management.
Analysis horizon	5-15 years	5-15 years
Frequency	Yearly	Yearly
Responsibility	CEO and Board of Directors where the DNP is involved	CEO and Board of Directors where the DNP is involved
Influence	Part of AP4's business environment analysis over the 10-40-year perspective, which affects long-term allocation. Used in macroeconomic analysis of up to a 10-year perspective to assess political and technological changes, growth and inflation as well as thematic sustainability investments.	Leads to a view on influence and opportunities within various areas, parts of value chains and sectors. Serves as support in individual investments to reduce risks and invest in sustainability trends.

	REDUCE RISKS	INVEST IN TRENDS	INFLUENCE AS INVESTOR
Description	Investment strategies and exclusions that reduce exposure to sectors or individual investments with significant sustainability-related risks.	Based on the thematic sustainability analysis and other trend analyses, invest assets to benefit from and contribute to a transition to a sustainable economy.	As an owner to exercise influence over companies to achieve development that leads to stronger companies with lower sustainability risks.
Time horizon	1-5 years	1-5 years	1-5 years
Frequency	Continuously	Continuously	Continuously
Responsibility	CEO and CEO-delegated mandates	CEO and CEO-delegated mandates	CEO and CEO-delegated mandates
Influence	Exclusion decisions to not have ownership in companies that violate international conventions that Sweden has signed, reduced exposure to e.g., climate risk in equity and credit portfolios.	Proactive investments in e.g., sustainable infrastructure, selection of companies in Sweden and globally with focus on companies whose operations are supported by long-term sustainability trends.	Voting at general meetings of shareholders in Sweden and internationally. In Sweden, where AP4 is a significant and well-known investor, close dialogues are conducted directly with companies. Internationally, AP4 works with AP1-AP3 through the Council on Ethics as well as with other investors in various sustainability areas.

Development work in 2020

Despite an extraordinary year dominated by the Covid-19 pandemic, AP4 continued to conduct long-term asset management while at the same time actively managing short-term risks. During 2020 a number of projects were carried out in development areas, contributing to further development of AP4's asset management activities.

Reduced long-term return target in 2021

Every three years AP4 analyses the pension system's long-term need for returns and net payments from the AP Funds, structural preconditions for economic development and anticipated long-term returns. The Asset Liability Management (ALM) process aims to set AP4's long-term return targets as well as the suitable allocation of equities in the portfolio over the long term. In this analysis AP4 strives for the balance between anticipated returns and risk that best contributes to a strengthening of the pension system while at the same time limiting risk through activation of the automatic balancing mechanism (the so-called brake) without one generation benefiting at the expense of another. An updated analysis of the pension system's assets and liabilities was conducted in 2020. A central parameter in this analysis is the long-term return expectations for equities and bonds. In the light of the very expansive monetary policy, expectations for returns in financial markets over longer periods have continued to fall, especially for fixed income assets. At the same time, the pension system is considerably stronger today than at the start in 2001, and the strain from the ongoing Covid-19 pandemic thus far does not seem to have had any significant negative impact on the system's financial position. The pension system's strong balance sheet, combined with a steadily shorter remaining period of outflows from the system, means that from the perspective of the pension system it is better to slightly lower the expected return than to increase the risk level in AP4's investment portfolio. Overall, these assessments have led to the decision to lower AP4's long-term real return target over 40 years to 3.5% from 4.0%, effective as from 2021. The long-term range for the equities allocation remains unchanged at 50%-70%, which is believed will ensure a well-considered balance between the pension system's long-term financial position and the risks for a balancing.

Continued increased strategic allocation to real assets

The long-term analysis is complemented with a medium-term analysis that takes a 10-year perspective which can in greater detail consider the prevailing economic situation and market dynamics. This analysis is performed yearly, and based on it the Board of Directors sets the medium-term return target and AP4's Dynamic Normal Portfolio (DNP), which is a benchmark portfolio that comprises various market indexes and describes a suitable medium-term asset allocation.

AP4's basic presumption in the analysis is that the global economy is successively adapting to a re-emerging trend of economic activity following a turbulent downturn and rebound.

The growth forecasts for 2021 were raised in 2020, which above all is due to an anticipated sharp rebound following the historic drop in growth in 2020. Growth is expected to lie slightly above the trend also in following years due to the low floor and major stimulus measures, but is thereafter expected to return to the same trend as earlier, which is already relatively cautious. All-in-all, however, the economic downturn has led to a permanent decrease in the level of global economic activity.

The inflation outlook is judged to have changed only marginally since the preceding year, but obscures relatively large underlying risks. The assessment is that inflation will remain a good bit below target levels in emerging as well as developed markets during the 10-year period, after which it is expected to lie slightly above the target levels for a couple of years before stabilising around the target level. AP4 believes that going forward there is a latent inflation risk. Owing to the combination that the response to the Covid-19 pandemic has not only been greater but also was put into action faster while the economic downturn may be relatively short-term – albeit deep – there is reason to fear that inflation will pick up within the course of a few years.

AP4's starting premise is also that we are moving from a relatively weak to an increasingly stronger climate transition – driven by politics and technology – that is cautiously stimulative but fits within the framework of AP4's base scenario.

Against the background of this analysis, heading into 2021 AP4 has decided to continue increasing the strategic weight of real assets by 1 percentage point to 15% of the DNP, with a corresponding decrease in global fixed income investments. This is a step in an anticipated long-term change.

Business environment analysis of the climate transition

As a complement to AP4's climate scenario analysis, during 2020 a business environment analysis was conducted of the climate transition and its impact on various industries, specifically the energy sector. As part of this work, asset management strategies were developed that incorporate new, forward-looking sustainability data and new, fundamental thematic management. This also resulted in significant portfolio changes, above all for holdings in



the energy sector. The baseline for the analysis is that the goals of the Paris Agreement are reached, which means that annual global greenhouse gas emissions must start to be reduced relatively immediately and at a fast pace. The transition must be conducted throughout society and globally, which affects governments, business and industry, investors and consumers. International collaborations and accords are important, as is focusing on the problems and overall measures that have the greatest benefit. AP4 believes that the single most important tool for creating tangible economic incentives that could affect all actors in society is global pricing of greenhouse gas emissions. Today, greenhouse gas emissions represent a societal cost that the actors who are most responsible for the emissions often are not held to account. This must change for a successful climate transition to be possible, and the pricing will need to be complemented with support for the groups and regions that would be negatively impacted.

In the transition that has now begun, reduced emissions can be put in relation to economic growth and societal development in general as well as to the fight against poverty. To achieve the goals of the Paris Agreement, it is therefore essential that the remaining carbon budget is used wisely. Thermal coal that is used to produce electricity and heat is the energy source which, relative to oil and gas, emits the most carbon dioxide per produced unit of energy. Coal is the largest source of greenhouse gas emissions and also the energy source with the largest existing reserves, for which there is no scope in a global carbon budget. As a source of energy, coal can more easily be replaced by renewable energy sources such as wind and solar power due to its application areas. Part of the current reserves of conventional oil and gas should be used during a transitional phase, but coal must remain in the ground.

The climate scenario analysis also serves as the foundation for the Board's decisions on medium-term return targets and strategic asset allocation through the Dynamic Normal Portfolio (DNP) and is thereby integrated in AP4's overall business environment analysis.

Thematic sustainability analysis

The climate scenario analysis describes the potential financial risks and opportunities at the sector level and thereby has an influence on the analysis of sustainability themes and, by extension, specific investments, companies and sector selection in the operative asset management. The thematic analysis is about understanding how the climate transition affects value chains in various industries and

sectors. In an initial step, AP4 has identified themes in three broad areas – the energy transition/mobility, resource efficiency, and renewable energy – which are implemented in different portfolios. As an example, during 2020 the Alternative Investments asset management unit actively sought out and made investments in unlisted equities and infrastructure based on a thematic analysis of the energy transition, resource efficiency and renewable energy areas.

Forward-looking climate data in global equities management

During 2020 the quantitative company analysis in low-carbon strategies in the global equities management introduced new, forward-looking data sources pertaining to companies' actions in relation to the Paris Agreement and their ability to manage carbon pricing. These two new metrics have been integrated with existing data on companies' carbon intensity. Together these now form the basis for divesting companies in AP4's entire, internally managed global equity portfolio as well as for company selection in the quantitatively managed low-carbon strategies.

New strategy with fundamental thematic management

AP4's global equity portfolio is managed mainly through structured quantitative management. During 2020 that management strategy was complemented with new, fundamental thematic management. Experienced fund managers have been recruited, and analysis and management work was begun during the year. Fundamental thematic management is an active investment strategy that combines thematic analysis of long-term societal and sustainability trends with quantitative and fundamental equities selection. An important starting point is AP4's thematic analysis, which identifies sectors and value chains based on the climate transition. The fundamental thematic management then focuses on identifying specific companies within these themes that are either winners or losers in these long-term trends. During 2020 an analysis of the climate transition and its impact on fossil-based companies was conducted. As a consequence of this, companies whose plans and goals are not considered to be aligned with the Paris Agreement have been divested from the portfolio. A thematic sustainability portfolio with companies that have a refined approach to renewable energy has begun to be built up. The ambition is to further address carbon-intensive sectors in the thematic analysis as well as in company selection.

External risks in the portfolio

AP4's asset management operations include assessing risks and opportunities in the external business environment and how these affect AP4. Significant risk areas include the pension system's basic conditions, economic development, markets and sustainability-related risks.

Following is a description of how these risks are identified and managed to contribute to AP4's mission to generate long-term high returns for the pension system through exemplary management of pension capital.

On top of these risks are also risks associated with AP4's internal operations, such as operational risks (e.g., personnel risks, system risk and process risks) and other business risks (such as reputational risks). How these are managed is described on pages 40 and 57, and in the Fund Governance Report on pages 67-68.

	RISK AREAS	
	THE PENSION SYSTEM'S LONG-TERM NEEDS AND STRUCTURAL SOCIOECONOMIC FACTORS	MEDIUM-TERM ECONOMIC PERFORMANCE AND FINANCIAL MARKETS
Identification	<p>Identifies long-term risks for the pension system over 40 years' time:</p> <ul style="list-style-type: none"> • Demographic development • Labour market development • Long-term return expectations in financial markets 	<p>Identifies risks from a ten-year perspective with focus on the 5-15 year time span, which enables analysis of more detailed cyclical events:</p> <ul style="list-style-type: none"> • Macroeconomic scenarios • The financial markets' valuations • Climate transition
Governance	<p>Every three years AP4 conducts an ALM (Asset Liability Management) analysis, where the work is continuously reported to the Board, and where the following are determined:</p> <ul style="list-style-type: none"> • Long-term return targets • Decisions on the risk scope are expressed in terms of a range for the portion of equities, currency exposure and the fixed income portfolio's average duration 	<p>The Board is continuously kept up to date with this analysis of risks and opportunities, and decides yearly on:</p> <ul style="list-style-type: none"> • The Dynamic Normal Portfolio (DNP), a benchmark portfolio of several market indexes
Management	<p>AP4 conducts a business environment analysis with various scenarios that affect the preconditions for the pension system. AP4 works according to the Swedish Pensions Agency's forecasts combined with own stress tests of the labour market, demographics and return expectations.</p>	<p>Scenarios for the macroeconomic development, including the climate transition's possible impacts on these scenarios, interest rate movements and equity valuations are presented yearly for the Board of Directors.</p>
Targets	<p>Striving for the combination of return targets and risk level that is best-suited for the pension system in the short- and long-term.</p>	<ul style="list-style-type: none"> • Medium-term return target 3% • Active return target 1 percentage point • Active risk scope 5 percentage points
Results	<p>As a reflection of the pension system's current strength combined with the prevailing market situation with low anticipated returns and with maintained generation neutrality, the long-term real return target has been lowered, initially in 2018 from 4.5% to 4.0% and now starting in 2021 to 3.5%.</p>	<p>AP4's asset management is evaluated over different time horizons:</p> <ul style="list-style-type: none"> • Total return is evaluated on a rolling 10-year basis. AP4's return for the period 2011-2020 was 9.7%, which exceeded the return target, which averaged 5.0%. • Ahead of 2021 the Board decided to increase the share of real assets from 14% to 15% and to reduce the share of global fixed income investments from 23% to 22% of the DNP. • Active return on top of the DNP is measured over a 5-year period and averaged 1.8 percentage points per year during the period 2016-2020, compared with the target of 1.1 percentage points per year.

RISK AREAS

CLIMATE RISKS, CLIMATE TRANSITION AND OTHER ENVIRONMENTAL RISKS



HUMAN RIGHTS AND SOCIAL CONDITIONS


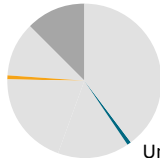
CORRUPTION

Identification	Climate change and the climate transition are systemic risks with global impacts on society, economies and expected returns. Climate risks consist of physical risks (including temporary risks such as extreme weather and flooding as well as permanent risk such as rising sea levels) and transitional risks. Risks such as changes in tax rules, sector requirements and demand may lead to poorer competitiveness for certain companies and sectors, and lead to higher costs in the form of taxes, insurance premiums and continuous investments.	AP4 has a broad global portfolio with holdings in several thousand companies aimed at generating the highest possible risk-adjusted return while at the same time being cost-effective. Some of these companies are domiciled or conduct operations in countries where the handling of human rights and other social conditions is not always on par with the international conventions that Sweden has ratified. This poses a risk for human rights violations and other negative social conditions in companies in which AP4 has invested.	Corruption is a global problem that exists in many countries and industries. It is harmful and costly for society, it skews sound competition and undermines asset values as well as people's trust in political and economic systems. Various forms of corruption constitute commonly prevalent sustainability risks for many companies. With broad equities exposure, corruption is a threat to the portfolio's long-term return.
Governance	The Board of Directors has addressed the significance by establishing Climate & Environment as one of two focus areas in the asset management. Corporate Governance is the other focus area, which stipulates that AP4 shall work as an active and engaged owner to contribute to the portfolio companies' work on managing climate and environmental risks. It is also one of the focus areas for the Council on Ethics.	AP4, together with AP1-AP3, has formed the Council on Ethics of the AP Funds, which is responsible for systematic business intelligence monitoring of approximately 3,500 companies and regularly analyses the portfolio to identify any violations of human rights or other conventions. The Council on Ethics also works proactively in projects to promote compliance with human rights and improvements in social conditions.	AP4, together with AP1-AP3, has formed the Council on Ethics of the AP Funds, which is responsible for systematic business environment monitoring of approximately 3,500 companies and regularly analyses the portfolio to identify any cases of corruption.
Management	AP4 reduces risk through optimisation strategies where company weightings in the respective sectors are adjusted based on the companies' carbon intensity. AP4 makes thematic investments that contribute to and benefit from the climate transition and influence companies as an owner.	In the case of a confirmed violation of an international convention by an individual company, the Council on Ethics can decide to engage the company in a dialogue to bring about a positive change. If the dialogue does not lead the desired result, the Council on Ethics may recommend the AP Funds to exclude the company from their portfolios. AP4 is conducting a project within its asset management aimed at proactively mapping the risk scenario for various industries and countries regarding human rights risks.	The Council on Ethics conducts reactive dialogues with companies in cases of confirmed corruption as well as proactive projects aimed at countering corruption in industries and countries where it is a pervasive problem. AP4 makes demands for transparency and discusses with companies how e.g., policies, guidelines and routines for preventing corruption are designed and how follow-up is conducted. Tools that can reduce and prevent corruption include greater transparency, whistleblower functions and improved follow-up of companies' internal rules. AP4 eagerly cooperates with other investors in this work and votes in line with this work at company shareholder meetings.
Targets	AP4 supports the Paris Agreement and is striving to reduce the portfolio's carbon footprint in line with the Paris Agreement's goal of limiting temperature change. AP4 aims to halve the carbon footprint of its portfolio by 2030 and have net-zero emissions by 2040 at the latest.	AP4 is working to increase knowledge in its asset management about the risk for human rights violations and to identify these risks. Through the Council on Ethics' work, AP4 aims to identify serious incidents and human rights violations in companies in the portfolio and to work to ensure that the companies remedy these and work preventively to prevent new incidents from occurring. Through its proactive work, the Council on Ethics strives to support companies in their work with social challenges and thereby prevent serious incidents.	AP4 is working to increase knowledge in its asset management about the risk for corruption and to proactively identify these risks. Through the Council on Ethics' work, AP4 aims to identify serious incidents of corruption in companies in the portfolio and to work to ensure that the companies remedy these and work preventively to prevent corruption. Through its proactive work, the Council on Ethics strives to support companies in their work with combating corruption.
Results	Since 2010, the portfolio's carbon footprint has decreased by 48%. AP4's equity portfolio has a carbon intensity which today is 46% that of a broad global equities index (MSCI ACWI). During 2020 the Council on Ethics registered a total of 423 incidents, of which 61 pertained to the environment. AP4 conducted more than 500 company dialogues in 2020 – on its own and through the Council on Ethics as well as in sustainability engagements.	During 2020 the Council on Ethics registered a total of 423 incidents, of which 186 pertained to human rights. AP4 conducted more than 500 company dialogues in 2020 – on its own and through the Council on Ethics as well as in sustainability engagements.	During 2020 the Council on Ethics registered a total of 423 incidents, of which 114 pertained to the business ethics. AP4 conducted more than 500 company dialogues in 2020 – on its own and through the Council on Ethics as well as in sustainability engagements.

Asset management per asset class

AP4's management of asset classes in the DNP is handled by four asset management units: Strategic Allocation & Quantitative Analysis, Fundamental Equities, Fixed Income & FX, and Alternative Investments. On top of this, Global Macro handles a non-capital absolute return assignment.

ASSET MANAGEMENT UNIT	STRATEGIC ALLOCATION & QUANTITATIVE ANALYSIS (SAQA)	FUNDAMENTAL EQUITIES
Area of responsibility	Active asset allocation among all asset classes in the portfolio, handling of the asset classes' movements resulting from market movements, management of the global equities asset class. Analysis support for the Board and other asset management units.	Active management of the Swedish equities asset class. Management of listed real estate equities (within real assets).
Share of portfolio	 <p>Global equities</p>	 <p>Swedish equities</p>
Asset management strategy	Global equities management consists of two parts: cost-efficient and quantitative-based asset management aimed at efficiently creating index-linked exposure to the stock markets; this is complemented by active management that is conducted by selected external asset managers that are chosen to provide a large diversification of active return sources and thus risk diversification.	Swedish equities management is conducted with a starting point in fundamental company analysis where long-term perspective, corporate governance and sustainability are key parts of the strategy. The goal is to outperform the market index by identifying companies with long-term favourable growth in value and equities with revaluation potential.
Return	The return for global equities in 2020 was 13.5% (23.9%). The global equities management's excess return was 1.3 percentage points (0.3) in 2020 and an average of 0.8 percentage points (0.7) per year over a five-year evaluation horizon.	The return for Swedish equities in 2020 was 30.2% (42.4%). Over several years, Swedish equities management has outperformed the index with favourable risk-adjusted returns. For 2020 the excess return was 15.3 percentage points (7.4). Over a five-year evaluation horizon, that average excess return was 5.1 percentage points (2.8) per year.
Integration of sustainability in asset management	<ul style="list-style-type: none"> Responsible for climate scenario analysis, its impact on macroeconomic scenarios, and on the DNP Responsible for thematic sustainability analysis Does not invest in companies on AP4's exclusion list Implements low-carbon strategies within the framework of the global equities management Uses sustainability-oriented external asset managers Votes at general meetings of shareholders globally in accordance with AP4's ownership policy 	<ul style="list-style-type: none"> Sector-based risk analysis of sustainability challenges as part of the investment process Does not invest in companies on AP4's exclusion list Takes responsibility as owner and serves on nomination committees and makes AP4's voice heard at shareholder meetings Works to ensure that the companies have the best possible boards, including with respect to diversity As a consequence of the investment philosophy and taking sustainability risks into account, the portfolio's carbon intensity is very low
Development of sustainability in asset management in 2020	<ul style="list-style-type: none"> Established team and process for internal sustainability-oriented thematic fundamental asset management Analysed the climate transition and assessed impact on the fossil fuel sector Divested energy companies from the portfolio whose goals and plans are not considered to be aligned with the Paris Agreement Implemented forward-looking factors for equities selection in low-carbon strategies 	<ul style="list-style-type: none"> Developed analysis tools to assess how companies handle sustainability aspects ahead of company visits Reached out a lending hand and conducted proactive dialogues with companies and principal owners on how the situation arising out of Covid-19 can best be handled

ASSET MANAGEMENT UNIT	FIXED INCOME & FX	ALTERNATIVE INVESTMENTS
Area of responsibility	Active management of the global and Swedish fixed income asset classes, active currency management and management of AP4's total currency hedging.	Investments in illiquid real estate and infrastructure assets (within real assets), unlisted credits (within global credits) and unlisted equities (within global equities).
Share of portfolio	<p>Swedish fixed income</p> <p>Global fixed income</p> 	<p>Real assets</p> <p>Unlisted credits</p> <p>Unlisted equities</p> 
Asset management strategy	The fixed income portfolio is liquid and creditworthy: bonds with the highest credit rating, AAA, ¹ accounted for slightly more than 63% (70%) of AP4's holdings of fixed income securities. Corporate bonds made up just under half of AP4's bond holdings at year-end.	The real assets asset class today consists mainly of direct investments in unlisted and listed property companies and to a lesser extent of various funds focused on real estate and infrastructure investments. AP4 uses external asset managers for investments in private equity companies and illiquid credits.
Return	The return for the year was 4.0% (4.3%) for AP4's global fixed income investments and 1.5% (1.7%) for Swedish fixed income investments. The excess return for fixed income investments in 2020 was 0.7 percentage points (1.1) and an average of 0.2 percentage points (0.3) per year over a five-year evaluation horizon.	Real assets generated a return of 5.0% (24.6%) in 2020, which is 1.7 percentage points (20.0) better than the return target. Since the return target for real assets consists of an absolute target of the CPI plus three percentage points, the return in individual years may deviate considerably from the target return. However, the return for real assets is to be evaluated over longer periods of time. Over a five-year period the portfolio generated an average return of 18.0% (23.6%) per year.
Integration of sustainability in asset management	<ul style="list-style-type: none"> Assesses sustainability trends such as the energy transition, resource efficiency and renewable energy ahead of investment decisions Does not invest in companies on AP4's exclusion list No investments in companies with significant exposure to fossil energy sources Invests in green bonds 	<ul style="list-style-type: none"> Evaluates and sets demands on external asset managers' and investment companies' sustainability work ahead of potential investments as an integrated part of investment evaluations and follow-up Sets demands for external asset managers and investment companies to not invest in sectors or companies on AP4's exclusion list Directs a significant share of new investments to areas identified through the thematic sustainability analysis
Development of sustainability in asset management in 2020	<ul style="list-style-type: none"> Evaluated the opportunity to measure and report carbon footprint for the credit portfolio and government bonds. The assessment is that currently there is insufficient data to be able to report externally. AP4 continues to monitor developments in this area 	<ul style="list-style-type: none"> In-depth analysis of risks for stranded assets in infrastructure Carried out thematic investments coupled to the Climate & Environment focus area Implemented enhanced due diligence in sustainability, compliance, risk and governance Initiated a dialogue with AP4's property companies and external asset managers in real assets regarding climate impact and climate strategy

¹ The credit risk classification presented (rating) pertains to an internal standard. The assessment in this standard for 2020 is based on the rating issued by the selected rating agency (Moody's Analytics UK Ltd).



FUNDAMENTAL EQUITIES

“When we invest in a company, we do so knowing we are both capable and wish to be owner in specifically that company for a long time.”

Perspective

Per Colleen

Head of Fundamental Equities, which manages AP4's Swedish equity portfolio of SEK 75 billion.

In total, the actively managed Swedish equity portfolio has generated a return of 201.3% since 2014, which is 76.6% better than the stock market index. Over the period this has generated SEK 15.8 billion in value added for Sweden's pensioners.

What is the management of AP4's Swedish equities based upon?

– Our equities management is based on the ability to act very long-term. AP4 has no fund unit customers who can withdraw their money at short notice. Nor are we restricted by solvency rules or regulations that could steer the asset allocation away from equities during a dramatic market decline. AP4's outflows are predictable. When we invest in a company, we do so knowing we are both capable and wish to be owner in specifically that company for a long time. AP4 has been a well-known and significant shareholder in the Swedish stock market since 1974. We have good networks, and we work actively with, and are often invited to participate in capital-raising activities. At the same time, this is confidence that must be earned every day. How we conduct our asset management in relation to our portfolio companies is important for our prospects of being invited to future discussions on raising capital and IPOs.

As a responsible owner, we spend a lot of time working, on dialogues with the companies, on nomination committees, and by making our voice heard and voting at general meetings. This gives us a better understanding for the companies, which we see as a vital tool for securing and increasing the value of our investments. All nomination committee work is handled by the asset management team.

Describe your investment philosophy?

– We have a simple investment philosophy that is based on knowledge about the companies we invest in. We seek out long-term sustainable business models that build upon, for example, structural trends such as efficiency in health-care, energy and food production. We prefer companies that are market leaders in niches and that are not capital-intensive. A main shareholder that leads the investment is a plus. We avoid companies that are active in politically regulated markets and highly capex-intensive

industries. As a long-term owner, our company valuations at the time of investment are subordinate to the company's qualities. Expensive equities tend to remain expensive as long as a company is delivering. Nor am I particularly active in my reallocations. Since joining AP4 in 2013 I have invested in just under 40 companies. Of these, AP4 still has holdings in 30. Five companies have been bought out from the stock exchange, and we therefore are no longer owner in these, and in three cases we reassessed our view and sold the holdings on the market.

Has Covid-19 affected the management?

– The course of events went incredibly fast during the spring, and with considerable uncertainty. At the time we reached out a lending hand to the companies we are close to and were positive to increasing our holdings. We were clear in our discussions with principal owners and management teams – we are here and eager to help if needed. This quickly led to several concrete situations, where the largest new issue was conducted by the company Medicover, in which AP4 invested an additional SEK 600 million. We also had discussions with the Ministry of Finance on the matter of temporarily allowing a higher share of ownership in Swedish companies to enable support for companies during this difficult period, such as if a need were to arise for new issues. The Ministry of Finance and Parliament took a positive view of this and addressed the matter very quickly. We can now go up to a 15% ownership stake until summer 2021, which gives us better opportunities to provide long-term support to companies that need it. To date we have taken advantage of this opportunity in one company. We also participated in a few other new share issues during the year. In such special situations that we ended up in during the spring it is important to look up, stay calm, and continue to think long-term. This creates conditions for continuing to be a successful long-term investor.

Sustainability-related risks and opportunities in AP4's portfolio

AP4's asset management is affected by long-term developments in the general business environment, such as demographic changes, trade, innovation and productivity. These, in turn, affect global growth, inflation, and financial and monetary policies. Sustainability issues such as climate change, human rights and corruption are also part of the general business environment, and together they create the conditions for AP4's asset management.

AP4's sustainability work is rooted in its statutory assignment

AP4's operations are governed by the AP Funds Act, which prescribes that asset management shall be conducted in an exemplary way through responsible investments and responsible ownership, and that particular emphasis shall be put on how sustainable development can be promoted without compromising on the overarching objectives for risk and return. The AP Funds Act also prescribes that AP4's overall mission is to manage the fund assets in such a way that it will provide the greatest possible benefit for the income pension system, that is, generate the highest possible long-term return for the benefit of current and future pensioners.

This mission makes AP4 a very long-term investor with an investment horizon of up to 40 years. With such a long-term perspective it is essential as a responsible investor to take into consideration risks and opportunities related to sustainability, such as climate change, biodiversity, human rights, corruption and other social conditions.

Climate change and the climate transition – the greatest sustainability risks for AP4's asset management

Sustainability is one of our time's greatest challenges for which the political system, business and civil society must find solutions.

- More specifically, AP4 has identified climate change as one of the greatest systemic risks for long-term asset values. Reducing climate impact is a precondition for stable, future economic development and thus for AP4's opportunities to perform its mission over time. In the transition to a low fossil society, AP4 believes among other things that greenhouse gas emissions can lead to rising costs for companies. Companies with high emissions and companies with fossil fuel reserves will be negatively affected by the climate transition and will be valued and priced differently than what they are today. Climate risks therefore lend themselves to being included in financial investment assessments with long-term investment horizons.
- Shortcomings and violations of human rights are a sustainability risk that exists in many industries, especially those with long supply chains and production in countries with weak laws and weak enforcement of laws. In AP4's asset management with broad global exposure, this represents a sustainability risk – in companies domiciled in countries with weak laws, but also in companies from countries with strong laws, such as Sweden, but which work in countries with weak laws.
- Corruption is a global problem that is pervasive in many countries and industries. It is harmful and costly for society, it skews sound competition, and it undermines asset values as well as people's trust in political and economic systems. Various forms of corruption are commonly occurring sustainability risks for many companies and therefore also for AP4, which invests broadly in listed companies on a global basis.



The Board of Directors governs and follows up sustainability-related risks and opportunities

Through various governance documents the Board of Directors lays out AP4's work with sustainability. These governance documents are followed up yearly and are revised as necessary.

- In its Sustainability Policy the Board has determined that Climate & Environment and Corporate Governance are priority sustainability areas for the asset management. These are considered to be essential for AP4's opportunities to safeguard and develop the fund capital and are areas in which AP4 can contribute to sustainable development.
- The Board has also adopted an investment philosophy that stipulates that sustainability, over time, contributes to better management of risks and opportunities, and thereby to the return.
- The Board adopts an ownership policy which prescribes how the work as an active owner shall be conducted.
- Each year the Board adopts AP4's long-term strategy and yearly plan. These documents lay out the goals, activities and follow-up parameters for AP4's operations, which include sustainability in asset management.
- AP1-AP4 have jointly prepared three documents that govern how asset management is to be conducted in an exemplary way: common core values for managing the fund capital, common guidelines for reporting on how the objective has been achieved, and common guidelines on which assets the fund capital should not be invested in.

The Board has assigned the CEO with the task of continuously assessing and addressing climate-related issues in the asset management. The CEO reports regularly to AP4's board on the implementation of sustainability in asset management as well as on the development of strategies, activity plans and goals.

Climate-related matters related to asset management strategies and investments are prioritised by AP4's board and are addressed in principle at every board meeting. During 2020 the Board, in addition to making decisions on and following up AP4's governance documents and strategy, addressed matters related to AP4's sustainability work, sustainability trends and the climate scenario analysis.

Management is responsible for managing sustainability-related risks and opportunities

The CEO and the heads of the respective asset management units are responsible for ensuring that sustainability is integrated in AP4's investment processes. Asset management is organised into four units: Fundamental Equities, Fixed Income & FX, Alternative Investments, and Strategic Allocation & Quantitative Analysis. The CEO has delegated to each of the asset management heads, in accordance with AP4's strategy and yearly plan, to report each year on their respective development activities for how sustainability is integrated in AP4's investment processes as well as responsibility for these activities.

The strategy and yearly plan are followed up every four months by the executive management team. The Sustainability, Finance & Communication unit, which is directly subordinate to the CEO,

has overarching coordination and business support responsibility vis-à-vis the asset management units regarding the business strategy and sustainability matters. The unit also coordinates the work of the Sustainability Team, which is an internal collaboration group made up of representatives from the asset management units and the CEO. This unit is responsible for AP4's coordination of external sustainability cooperation and initiatives with other investors – in Sweden and internationally. AP4 manages sustainability risks partly through its own asset management and partly in collaboration with AP1-AP3 through the Council on Ethics and other institutional owners.

Management of sustainability-related risks and opportunities

AP4's analysis of sustainability trends shows how these may affect AP4's portfolio and how AP4 can make investments to manage these risks and opportunities. The process is built upon a structured evaluation of investment ideas by documenting a distinct investment thesis, testing it, and making a determination of whether it is possible to invest in accordance with the thesis.

A step in this work with respect to climate risk is the climate scenario analysis, which assesses possible effects on macro-economic development in the medium-term macroeconomic scenarios that are used as a basis for decisions on the overarching portfolio allocation. This work provides great knowledge and support for AP4's work on measuring climate risks in the portfolio. This knowledge is also used in dialogues with portfolio companies and other owners as well as to reduce risks in the portfolio and invest in proactive sustainability themes that can contribute to as well as benefit from a sustainability transition.

Based on the climate scenario analysis, AP4 has identified a number of themes that are essential for the climate transition. Decisions to not have ownership in certain fossil-based companies as well as on lowering the portfolio's climate risk by investing in accordance with low-carbon strategies are together contributing to a lower carbon footprint for the portfolio. This reduces exposure both to short-term market risks and transition risks. AP4 identifies and invests in dedicated sustainability investments that can contribute to and benefit from the ongoing climate transition. Over time, these may represent significant opportunities in the portfolio.

The United Nations Guiding Principles on Business and Human Rights (UNGP) is a framework for how states and companies should act to avoid and prevent negative impacts on or violations of human rights. Among other things, it requires companies to implement processes for identifying and managing human rights risks. Through the Council on Ethics, AP4 works to influence foreign companies – often in cooperation with other investors and stakeholders – to act on human rights violations and prevent future negative impacts. In the aim of deepening and further developing its work with human rights, in 2019 and 2020 the Council on Ethics and the AP Funds conducted a project with Shift, an organisation with UNGP expertise. Among other things, the project has focused on sharing knowledge about and gaining an understanding of the challenges and opportunities in risk identification and prioritisation, ways of working and organisation, and

identification of improvement areas both in the Council on Ethics' and AP4's processes.

Work on preventing and combating corruption is an important sustainability issue, and essentially all of the Council on Ethics' proactive company dialogues cover companies' work with anti-corruption. The goal of the Council on Ethics' advocacy dialogues with companies concerning corruption and AP4's anti-corruption work by voting at general meetings and supporting various global initiatives against lobbying is that companies will strengthen their anti-corruption work. In company dialogues, AP4 discusses – among other things – how policies, guidelines and routines for preventing corruption are formulated and how follow-up of these is conducted. Tools for eliminating and preventing corruption include greater transparency, whistleblower functions and improved follow-up of companies' internal rules.

Transparent communication of the goals and results of sustainability work

Integration of sustainability in both investments and operations is a prerequisite for long-term and successful asset management. Transparently reporting on AP4's work, asset management, sustainability integration and on how AP4 works as a responsible owner is a guiding principle for AP4. Transparent reporting is something that AP4 also requires of the companies and operations that AP4 invests in.

For AP4's two sustainability focus areas – Climate & Environment and Corporate Governance – AP4 has set a number of goals that are reported on pages 31-32 and page 36, where goal achievement is also described. The goals are mainly activity

targets that steer the focus of AP4's operations based on the conditions that apply at any given time.

Measures for Climate & Environment

AP4 measures the portfolio's carbon footprint and has been publishing information about it in its annual reports since 2014. Together with other AP Funds, AP4 has standardised how the AP Funds conduct their carbon footprint reporting by introducing three joint metrics in 2015 that describe the carbon footprint of its investments. In 2017 the AP Funds' carbon footprint reporting was complemented with the TCFD's metrics for carbon intensity. In 2019 the AP Funds further developed their reporting to also include an account of changes over time. These measures are aimed to report changes in a portfolio's carbon footprint owing in part to the changes that the respective AP Fund makes in the portfolio and in part to the work conducted by the underlying portfolio companies to reduce their emissions. These metrics for Climate & Environment are reported on page 33.

Measures for Corporate Governance

Active corporate governance is a tool for AP4 to contribute to the companies' development and also gain a better understanding of the companies and their operating environments. This helps make AP4 a better asset manager and owner.

The corporate governance measures focus on influencing work in the form of nomination committees and voting at general meetings of shareholders as well as work on increasing diversity in company boards with a specific focus on a more even gender balance. Corporate Governance metrics are reported on page 36.





Convention-based decisions to not invest in certain types of assets

One step in the integration of sustainability in portfolio management consists of the values-based decisions on which assets AP4 chooses to not invest in.

In this assessment AP4 makes an interpretation of the AP Funds Act's requirement for exemplary management and the Swedish state's core values concretised through the international conventions that Sweden has ratified and the international agreements that Sweden has backed. These rules and regulations make up the foundation for determining which assets the fund capital is not to be invested in. International conventions are in most cases written to govern how states are to act and are not intended to directly regulate a company's operations. This gives room for interpretation when it comes to a company's violations of conventions.

Decisions to not invest in a particular company may also be made after a recommendation from the Council on Ethics of the AP Funds based on confirmed company-specific violations of international conventions. Through the Council on Ethics, the AP Funds work jointly and in dialogue with companies in the aim of bringing about a long-term improvement in how operations are conducted. If such a dialogue is not believed to be effective, the

Council on Ethics can recommend that the AP Funds not invest in the company.

Following an internal assessment or recommendation by the Council on Ethics, AP4's CEO decides which assets AP4 is not to invest in. For directly owned holdings, AP4 has complete opportunities to influence the portfolio. Instructions are then issued to the responsible asset managers to not own these assets in the portfolio. This applies for equities as well as for fixed income instruments. In cases where AP4 is invested in actively managed securities funds or derivatives, AP4 conducts a structured evaluation of the fund manager's sustainability process and the likelihood that the fund manager may invest in companies excluded by AP4. AP4 also obtains an assurance from the fund manager that such assets are held only in exceptional cases and notifies that holdings of excluded companies may constitute grounds for ending the management assignment, and continuously follows up underlying holdings.

AP4 does not invest in:



Nuclear weapons

Nuclear weapons are weapons of mass destruction, and their use would bear a heavy toll on civilians. Corresponding biological and chemical weapons are therefore addressed and banned by UN conventions. Nuclear weapons are covered by the Non-Proliferation Treaty, which permits five states to have nuclear weapons. However, under the treaty these states have committed themselves to reducing and, over the long term, eliminating their own nuclear arsenals. Currently, modernisations and upgrades are being made to nuclear weapons programmes. AP4 is of the opinion that modernisations and upgrades go against the spirit of the Non-Proliferation Treaty. AP4 therefore decided in 2018 to not invest in companies involved in this area.



Tobacco and cannabis

In 2016 AP4 decided to not invest in tobacco companies, based on the determination that increased regulations would negatively impact tobacco companies' future stock market valuations. In addition, AP4 believes that an exemplary interpretation of the WHO Framework Convention on Tobacco Control, which seeks to steadily and sharply reduce tobacco consumption, supports AP4's decision to not have ownership in tobacco companies. The Council has recommended that the AP Funds exclude companies active in cannabis as a recreational drug or for religious purposes based on the UN's conventions on narcotic preparations. Companies that produce cannabis for medical or scientific purposes are not covered by the exclusion. This decision was made in 2018.



Fossil-based companies: thermal coal, oil sand and companies not aligned with the Paris Agreement

AP4 does not invest in companies for which thermal coal or oil sand account for more than 20% of sales. Thermal coal and oil sand are fossil energy sources with high carbon intensity per energy unit, and AP4 believes that these must be phased out in a global transition to a low-fossil society in line with the UN's Climate Convention and the Paris Agreement. AP4 therefore divested its holdings in such companies in 2018. During 2020 AP4 also divested its holdings in energy companies in the entire internally managed global equity portfolio whose plans and goals are considered to not be aligned with the Paris Agreement. In addition, AP4 applies low-carbon strategies for global equities, entailing that AP4 is reducing its exposure to the companies in each sector that have high carbon intensity, and using forward-looking data sources regarding companies' actions in relation to the Paris Agreement.



Cluster munitions and mines

The Mine Ban Treaty and the Convention on Cluster Munitions stipulate that states that have signed and ratified these treaties shall cease to produce, conduct trade in and use anti-personnel mines and cluster bombs. The Council on Ethics has recommended that the four AP Funds divest their holdings in companies that manufacture anti-personnel mines or cluster bombs, and AP4 therefore has not had ownership in any such companies since 2008.



Company-specific exclusions

AP4 collaborates with AP1-AP3 through the Council on Ethics. In the event of confirmed violations of international conventions, the Council on Ethics may choose to engage individual companies in a dialogue to bring about an improvement. If such a dialogue proves to be unfruitful, the Council on Ethics recommends that the AP Funds exclude such companies from their investment portfolios. AP4 has chosen to exclude companies based on recommendations from the Council on Ethics due to violations of conventions on health and safety, negative environmental impact, labour law, corruption and operations in occupied areas.

The UN's Global Sustainable Development Goals and sustainability engagement

AP4 has a goal that sustainability aspects – climate & environment, human rights, corporate governance and business ethics – are to be integrated in operations. The UN's Global Sustainable Development Goals are incorporated in AP4's sustainability policy, which serves as a governing framework for asset management.

The UN's Global Goals contribute to the operation's focus on investments and sustainability work that can contribute to solutions for major global problems. They also contribute to the asset management operations' opportunities to identify global trends that point to areas in which investments are needed and that can generate favourable, sustainable returns in the future. In its investments, AP4 focuses on the Global Goals that have investment potential and that preferably have couplings to the Climate & Environment focus area. The Global Goals constitute necessary preconditions for the ability to achieve other goals. AP4's work in the Corporate Governance focus area contributes to a number of different goals. With support from consultants, the Council on Ethics of the AP Funds engages listed companies globally in dialogues. A systematic follow-up of these dialogues is conducted to identify which of the Global Goals the respective dialogues support.

More in-depth work with the Goals

During the year, a project was initiated in all asset management units to gain more in-depth knowledge about the various Sustainable Development Goals and potential investments that could contribute to their achievement. This work involves, among other things, more systematically following up which Global Goals the respective units believe provide most support to the investment process as well as following up which investments are contributing to the achievement of the goals.

Measuring contributions to the individual goals at the company level is a major, complex and resource-intensive undertaking that is encumbered with considerable uncertainties. For example, there are difficulties in making individual considerations per company regarding which company activities AP4 believes may contribute to individual Global Goals and which it believes may counter the achievement of other Global Goals over time. AP4 has therefore chosen to identify and evaluate global trends which in turn may give rise to long-term sustainable investment opportunities.

Sustainability engagement

The number of sustainability engagements, collaborations and projects for investors to participate in is growing rapidly. This is a positive trend that AP4 supports, however, it is also a development that is putting greater demands on prioritisation to ensure that AP4's resources are used where they have the greatest ben-

efit. During the year AP4 further developed its process for documenting analyses, evaluations, selection and follow-up of various sustainability engagements. This ensures a uniform approach and prioritisation of resources, and simplifies the conveyance of information in the asset management operations. Sustainability engagements are assessed on the basis of how they contribute to AP4's long-term objectives, such as through greater sustainability of investments, promote transparency, provide greater access to data and develop market practice. Engagement, initiatives and collaborations also show the position AP4 takes on various issues. Following are a few sustainability engagements that AP4 participated in during the year.

- Combating climate change by influencing companies to reduce their greenhouse gas emissions. This work is being conducted through initiatives such as Climate Action 100+, where AP4 is engaged in dialogues with the companies Daimler, Engie and Volkswagen.
- Transition Pathway Initiative (TPI) is an investor-led collaboration aimed at getting companies to reduce their greenhouse gas emissions and transparently report on this work in accordance with the Task Force on Climate-related Financial Disclosures (TCFD). TPI is building up a public and open online database of companies' public information and assesses companies' progress in their transition compared with international goals laid out in the Paris Agreement. This work is being conducted with the support of an independent academic partner, the London School of Economics. AP4 supports TPI's work and is a member of the TPI Steering Group.
- Combating deforestation. AP4 and the Council on Ethics have worked for many years globally on combating deforestation and for preservation of biodiversity. During the year, deforestation in the Amazon intensified, and its future is considered to be under acute threat. AP4, together with other investors, has supported a call against deforestation in the Amazon and has engaged a number of companies in dialogue on the matter.
- Launch of the world's first global mining standard for tailings dams. The Council on Ethics, as a representative for PRI, took a strong engagement in ensuring that a global standard is devised and launched during the year. Work with the global mining standard and on developing a global, open database of tailings dams at mines was initiated following the major mine tailings dam disaster in Brumadinho, Brazil, in 2019, which resulted in

many fatalities and destroyed the environment over a large area. It is gratifying that the Council on Ethics and the Church of England's pension fund won PRI's Stewardship of the Year Award 2020 for this work. At the end of the year, a collaboration with UNEP also came into place to start an independent international institute with the assignment to drive implementation of the new global mining standard for tailings dams. Work for safer tailings dams will continue in 2021.

- Tech companies and human rights were a focus area for the Council on Ethics' work during the year. The Council on Ethics has worked together with the Danish Institute for Human Rights (DIHR) to draw up a number of requirements and expectations for how the large tech companies like Facebook, Google, Twitter and others should work strategically to strengthen their work with human rights. These are companies that have grown dramatically in a short period of time, and their platforms have led to many positive aspects, including accessibility to information and transparency. It is a development that has also given rise to many new challenges coupled to a host of complex issues, such as the collection, use and commercialisation of personal data, terrorism, election manipulation and serious consequences for exploited and at-risk groups, such as children and human rights advocates. The published requirements and expectations are conceived to serve as a platform for the Council on Ethics and other investors to carry on a more constructive dialogue with the tech sector surrounding companies' responsibility for human rights. The Council on Ethics has been a driver in formulating these expectations for tech companies and have started a dialogue with tech companies in collaboration with a large group of international investors.
- Urging companies to not contribute to negative climate lobbying by requiring companies to certify that they do not provide funding to organisations that conduct lobbying activities or are active in undermining work on combating climate change.
- Sustainable value creation is a collaboration initiative between AP4 and 15 other major Swedish institutional owners on Nasdaq Stockholm which arranged a highly attended digital seminar for listed Swedish companies on climate reporting. At the seminar, a study was presented which showed that at year-end 2020 companies listed on Nasdaq Stockholm still had shortcomings in relevant climate-related disclosures. Only 17 of the 332 listed companies included in the study reported on their financial risks in accordance with the TCFD's recommendations in their 2019 reports. Also at the seminar, a number of listed Swedish companies presented and shared their experiences of how they use the TCFD's reporting framework in practice. Sustainable value creation encourages all listed companies to either start climate reporting based on the "comply or explain" principle or further develop their climate reporting in line with the TCFD's recommendations.
- An appeal to ensure that shareholders' opportunities to influence American corporations are not undermined. During the autumn the US Securities and Exchange Commission (SEC), after successful lobbying by corporate organisations, submitted a proposal that would significantly reduce shareholders' opportunities to influence listed companies, to the benefit of company managements and boards. The SEC's proposal undermines shareholders' opportunities to submit proposals to general meetings and vote on e.g., companies' sustainability work, the transition to low-fossil operations and executive remuneration.



AP4's asset management and the UN's Sustainable Development Goals

Following is an account of the Global Goals that have the clearest couplings to AP4's portfolio.

Goal 3. Good Health and Well-being

AP4 does not invest in companies active in tobacco or cannabis.

Goal 5. Gender Equality

AP4 has long worked in a structured manner as an owner and in nomination processes for greater diversity and gender equality on company boards. This is an expressly stated objective in AP4's Corporate Governance focus area. AP4 supports international investor initiatives for greater gender equality and human rights.

Goal 7. Affordable and Clean Energy

Higher production and access to renewable energy is a precondition for the climate transition. AP4 regards renewable energy as an attractive investment area and has successively increased its exposure to the sector. Investments are made in Sweden through Polhem Infra in companies like Solör (bioenergy), Skaftåsen (wind power) and Telia Carrier (digital infrastructure to ensure access for everyone). In Europe, investments are made through Infra Alliance (focus on sustainable infrastructure, including renewable energy), in Africa through Meridiam Infrastructure Africa (sustainable infrastructure, including renewable energy), and globally through Copenhagen Infrastructure Partners (renewable energy).

Goal 8. Decent Work and Economic Growth

AP4 participates in international owner initiatives and engages companies in dialogues – through the Council on Ethics of the AP Funds, among other contexts – to promote decent working conditions, protect workers' rights, promote a safe and secure work environment, and combat forced labour, child labour, modern slavery and human trafficking.

Goal 9. Industry, Innovation and Infrastructure

Through its work as an active owner, AP4 urges companies in the public portfolio to accelerate their sustainability transition through development and innovation. One focus area in the unlisted portfolio involves making thematically oriented investments together with partners that invest in companies whose operations are focused on supporting the transition, such as through climate-smart business models, manufacturing methods or materials. Trill Impact and Generation Sustainable Solutions Fund are two examples of this.

Goal 11. Sustainable Cities and Communities

AP4's unlisted property companies work with sustainability in an integrated way, including reducing their carbon footprints. Most

are evaluated against the Global Real Estate Sustainability Benchmark (GRESB), which analyses sustainability in the real estate sector globally. These companies have high scores from GRESB for their sustainability work. For example, AP4 owns 25% of Vasakronan, Sweden's largest property company, which has long worked with sustainability in its operations and has earned the highest Green Star rating from GRESB. Both Vasakronan and Rikshem, AP4's two largest property holdings, have set goals to be climate-neutral by 2030.

Goal 12. Responsible Consumption and Production

Sustainable food production is a precondition for being able to feed a growing population. Through its unlisted portfolio AP4 has invested in Equilibrium Controlled Environment Foods Fund II, which invests in the construction and ownership of advanced greenhouses. Growing in controlled environments has significant sustainability advantages compared with traditional growing, such as considerably less water use, less land use and degradation, and less use of chemicals and pesticides. This type of growing also entails a lower risk for impact from extreme weather, for example.

Goal 13. Climate Action

AP4 supports the global Paris Agreement, which has set a goal to limit global warming to under 2 degrees Celsius. AP4 does not invest in companies that derive a significant share of their sales from thermal coal or oil sand. AP4 actively supports global climate targets by urging companies to refrain from negative climate lobbying, urges stock markets around the world to apply sustainability reporting guidelines, and supports initiatives demanding that resource-intensive companies work to reduce their negative environmental impacts.

Goal 15. Life on Land

Climate change is the issue at the global level that is considered to have the greatest impact on biodiversity. At the regional level AP4 works together with other investors, often through the Council on Ethics, on projects in support of biodiversity. Examples of such projects include deforestation in the Amazon and Asia, and sustainable meat production. At the local level AP4 works through the Council on Ethics to ensure that individual facilities such as hydroelectric dams, mines and fossil fuel production will have as limited environmental impact as possible. An example here is the establishment of the database for mining companies' tailing dams, which the Council on Ethics played a driving role in during 2019.

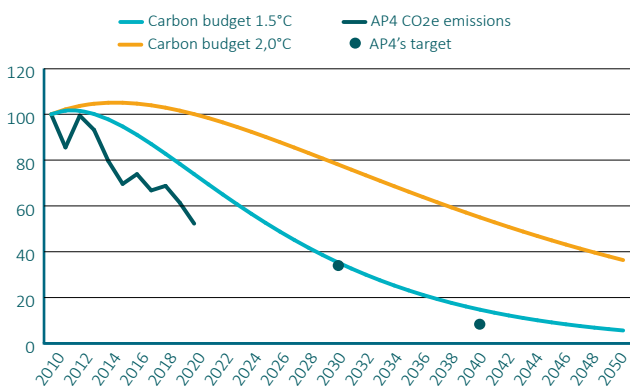
Metrics and goals for the Climate & Environment focus area

Climate & Environment is one of two prioritised sustainability areas in AP4’s asset management. AP4’s portfolio is to be invested in line with the Paris Agreement and has set a target to cut the carbon footprint in half from the current level by 2030 and thereafter to achieve net-zero emissions by 2040 at the latest. AP4 has the following goals for this work.

1 Contribute in the climate transition to a sustainable society

AP4 supports the Paris Agreement and the more ambitious Swedish environmental objective to achieve net-zero GHG emissions by 2045. AP4’s portfolio and investments are to support these goals. AP4 has essentially cut carbon emissions in half for the listed equity portfolio since 2010, with a decrease of 48%. AP4’s target is to further cut emissions from the current level in half and to have net-zero emissions by 2040 at the latest. Carbon intensity – (CO₂ emissions in relation to the portfolio companies’ sales) has decreased by 73% since 2010.

Yearly CO₂e emissions* (index 2010=100)



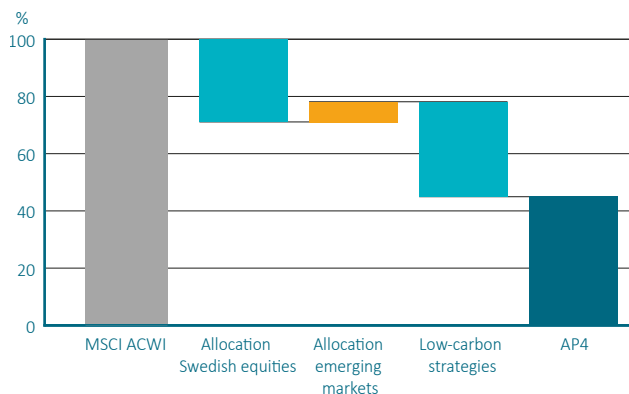
Source: Robbie Andrew (2019) based on the Global Carbon Project and IPCC SR15, and AP4’s calculations.

2 Investments that reduce climate risk in the portfolio

AP4 applies low-carbon strategies in the global equity portfolio. These are optimisation strategies that reduce exposure in each sector to companies with high CO₂ emissions or fossil fuel reserves. The strategies are developed continuously, and in 2020 they also incorporated forward-looking data pertaining to how companies’ operations are aligned with the Paris Agreement and how various levels of carbon pricing will impact companies’ margins. These parameters

affect divestments in AP4’s entire internally managed global equity portfolio. During 2020 AP4 established thematic global asset management, which analysed the climate transition and impact on fossil-based companies. This resulted in divestments of holdings in energy companies that are not considered to have plans and goals that are aligned with the Paris Agreement. Since previously AP4 does not own shares in companies with significant operations in thermal coal or oil sand. The overall result of this is that AP4’s carbon footprint is approximately 55% lower than that of a broad global equity index.

Contribution to CO₂e reduction



3 Proactive investments that contribute to and benefit from the climate transition

AP4 shall continuously analyse sustainability trends and seek out proactive investments in sustainability trends that contribute to the transition to a sustainable society and that also benefit from this transition. The ambition is to make good investments from both financial and sustainability perspectives. To be able to meet both of these requirements in a market where the offering is not known in advance, AP4 does not set any absolute goals for how much capital is to be invested thematically. Based on the thematic sustainability analysis, in 2020 AP4 continued to make

proactive sustainability investments. New commitments in the unlisted portfolio of SEK 6 billion have been invested, and in the fundamental thematic management, a thematic portfolio of niche companies has begun to be built up. AP4 continuously monitors the share of thematic investments in the investment flow and in the portfolio.

4 Based on identified indicators, evaluate possible asset management strategies

AP4 is working continuously to identify complementary indicators for Climate & Environment, both quantitative and qualitative, that can be used in its asset management. During 2020 AP4 implemented forward-looking climate factors in the global equity portfolio. These measure companies' actions in relation to the Paris Agreement as well as companies' ability to manage carbon pricing. AP4 has also worked with analyses to assess the fixed income portfolio's CO2 emissions and has come to the conclusion that available data is still not sufficiently extensive to be able to measure and report on the fixed income portfolio's emissions in a meaningful way.

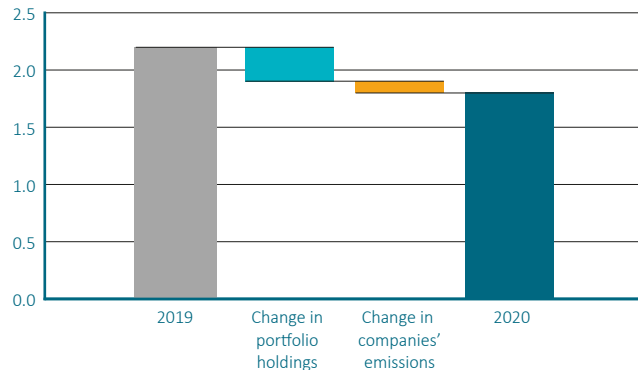
5 Advocate for a climate transition

AP4 influences companies in its role as owner, cooperates with other investors in an effort to broaden knowledge about how the climate issue can be addressed in the asset management

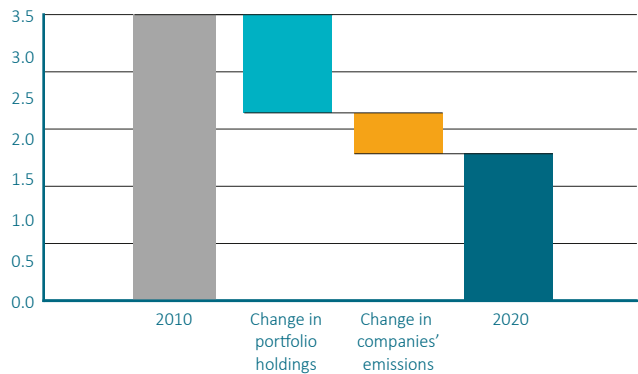
operations, and engages political decision-makers in a dialogue aimed at creating conditions for a climate transition. AP4 has reduced the carbon footprint of its portfolio through portfolio changes. To achieve the climate goals, the companies that AP4 invests in must also reduce CO2 emissions in their own respective operations. AP4 also engages political decision-makers in an active dialogue for the main purpose to create a global system for pricing carbon emissions. Such pricing would impactfully and immediately provide impetus to the climate transition by giving all economic actors a concordant and clear-cut incentive to reduce their CO2 emissions. AP4's CEO is an active participant and speaker at various investor and sustainability conferences. During the year the CEO participated at the Nordic minister meeting ahead of COP-26 as well as at a number of other virtual conferences and seminars focused on carbon pricing and the formulation of support measures for a sustainable recovery of economies.

In 2020 the carbon footprint of the equity portfolio decreased by a further 15%, of which AP4's portfolio changes accounted for 12 percentage points and companies' emissions accounted for 3 percentage points. Since companies' emissions are reported with a time lag, the decrease in emissions that is expected as a result of the lower level of activity in the world economy due to the Covid-19 pandemic is not expected to be visible until 2022 and 2023. Since 2010 AP4's carbon footprint has decreased by 48%, of which AP4's portfolio changes accounted for 33 percentage points and companies' reduced emissions accounted for 14 percentage points.

Changed CO2e emissions 2020 (MtCO2e)



Changed CO2e emissions 2010-2020 (MtCO2e)



Carbon footprint of the listed equity portfolio

METRICS	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Total carbon emissions (millions tCO ₂ e) ¹	1.84	2.16	2.42	2.35	2.60	2.45	2.80	3.28	3.50	3.01	3.52
Change in portfolio's total carbon emissions compared with preceding year (%)	-15%	-11%									
Of which, due to portfolio changes (%-pts)	-12%	-16%									
Of which, due to companies' changed emissions (%-pts)	-3%	5%									
Relative carbon emissions (tCO ₂ e/SEKm) ²	6.8	8.8	13.3	11.5	14.5	14.0	16.2	23.1			
Carbon intensity (tCO ₂ e/SEKm) ³	12.8	13.5	15.9	13.5	17.6	22.2					
Portfolio-weighted average carbon intensity (TCFD) (tCO ₂ e/SEKm) ⁴	8.7	10.3	14.3	15.3							
Change in portfolio's carbon intensity (TCFD) compared with preceding year (%)	-15%	-28%									
Of which, due to portfolio changes (%-pts)	-9%	-21%									
Of which, due to companies' changed emissions (%-pts)	-6%	-6%									
Identified market value as share of total fund capital (%)	60%	59%	50%	56%	56%	56%					
Identified market value as share of total equities (%)	100%	100%	95%	97%	96%	100%					
Share of market value for which reported emissions data is available (%) ⁵	66%	60%									

Carbon footprint of the unlisted real estate portfolio

METRICS	2020	2019
Total carbon emissions (millions tCO ₂ e) ¹	0.019	0.032
Relative carbon emissions (tCO ₂ e/SEKm) ²	0.49	0.83
Carbon intensity (tCO ₂ e/SEKm) ³	4.9	4.6
Portfolio-weighted carbon intensity (TCFD) (tCO ₂ e/SEKm) ⁴	4.3	5.6
Identified market value as share of total fund capital (%)	9%	9%
Identified market value as share of unlisted properties (%)	100%	100%
Share of market value for which reported emissions data is available (%) ⁵	97%	91%

¹ Sum of owned portion of portfolio companies' respective CO₂ emissions.

² Sum of owned portion of portfolio companies' respective CO₂ emissions in relation to the portfolio's market value.

³ Sum of owned portion of portfolio companies' respective CO₂ emissions in relation to the sum of owned portion of the portfolio companies' sales (harmonic mean).

Carbon footprint of the listed equity portfolio

The AP Funds report their respective carbon footprints in accordance with jointly adopted guidelines. These pertain to reporting for listed shareholdings.

Carbon footprint of the unlisted real estate portfolio

Since 2019, AP4 measures and reports the carbon footprint also for unlisted real estate investments. In these companies, AP4 is typically a significant investor with a sizeable share of ownership and opportunities to influence. During 2020 a dialogue was begun with the companies on their respective climate strategies and climate risks as well as on their work to further reduce their carbon footprints going forward. In 2021 AP4's unlisted infrastructure investments will be included in this work. Both Vasakronan and Rikshem, AP4's two largest holdings, have set targets to be climate-neutral by 2030.

⁴ This measure sums the portfolio companies' respective carbon intensity, i.e., a company's CO₂ emissions in relation to its sales, weighted based on the respective companies' share of the portfolio (arithmetic mean).

⁵ For the remainder of the portfolio, emissions data is estimated.

Corporate Governance – focus on long-term company development

As a long-term and engaged owner, AP4 works in the best interest of each individual company and its shareholders. Our long-term goal is that the companies' operations will develop, improve and be conducted responsibly and transparently, and thereby contribute to their long-term value creation.

Active corporate governance is an effective tool for creating and securing shareholder value over time. Within the corporate governance framework, AP4 works with matters such as board composition, capital structure, structuring of long-term remuneration programmes, diversity of human capital, the portfolio companies' work with sustainability matters and transparency in reporting. This work takes into account the views of the respective companies' stakeholders in order to best promote the company's long-term development, and in this work AP4 takes into consideration other owners' interests as well as what is best for the company in question.

Leading actors teaming up on corporate governance matters

Generally accepted practice and well-functioning stock markets are essential for long-term investors to be able to generate high and long-term sustainable returns. AP4 works often together with other owners and market actors through various cooperation initiatives and industry organisations, such as the Institutional Owners Association (IÄF), whose members consist of the 16 major institutional actors in the Swedish stock market and which works to ensure favourable development of self-regulation in the Swedish stock market. One example of an international corporate governance organisation that AP4 belongs to is the shareholder-based International Corporate Governance Network (ICGN), which is a leading actor in establishing global standards for corporate governance and how owners should act.

Board work increasing in complexity

AP4's corporate governance work is based on its ownership policy, which is available on AP4's website, where AP4 also reports in greater detail on the year's ownership matters in a yearly AGM season report. Many of the matters that were addressed ahead of and at Swedish companies' annual meetings in 2020 involved remuneration, mandates to carry out share issues, and board work – matters that AP4 has worked with for many years. AP4 and a majority of Swedish owners want to see remuneration

programmes with relevant and comprehensible performance requirements. As board work is growing increasingly complex, emphasis is put on the importance that board members dedicate the requisite time to board work and that they are active at board meetings. Globally AP4 has voted in favour of matters that are tied to increased shareholder influence, such as the opportunity to submit proposals to annual general meetings and make it easier for shareholders to summon an extraordinary general meeting. Other matters where AP4 has been active include calls for greater transparency on companies' work with sustainability issues, such as how CO2 emissions can be reduced and how companies can better communicate their advocacy work and how it is financed.

Greater diversity in Swedish boards

The number of directors as well as directors' competence, experience, age, gender, and available time to fulfil their assignment are factors that are taken into account based on the individual company's situation. For many years AP4 has worked to ensure that at least one woman is included as a final candidate in nominations for new board members. This work has had good results and has contributed to a higher share of women on the company boards for which AP4 has participated on the nomination committee. In 2020, 44.1% (44.4%) of new directors on these boards were women, compared with 34.9% (33.6%) for the stock exchange as a whole. For boards of companies listed on the Stockholm Stock Exchange in total in which changes were made in the boards' composition, 332 new directors were elected, of whom 116 were women. The share of women on the boards of listed companies increased by 1.1 percentage point (-1.8) to 34.2% (33.1%). One challenge that exists in boards' diversity work is the large number of companies that are relatively small and newly listed on the stock exchange, which more often have an uneven gender balance. Within the framework of the Institutional Owners Association (IÄF), AP4 has therefore advocated for a more even gender balance on boards ahead of Initial Public Offerings.



Corporate governance in unlisted companies

AP4 invests in unlisted companies through funds or private equity companies. AP4 strives to be a significant investor and is represented on a total of 55 Limited Partner Advisory Committees (LPACs), corresponding to 80% of unlisted investments in the portfolio.

Corporate governance in foreign companies

Shareholder rights vary from country to country; often, voting rights can be more restricted in companies abroad than in Sweden. AP4 therefore gives priority to voting in the larger com-

panies in the respective markets, in companies with which the Council on Ethics of the AP Funds has engaged in a dialogue, and companies in which AP4 supports an international initiative.

In foreign companies, AP4's share of ownership is typically lower than 0.05%. This limits opportunities for corporate governance as well as access to companies' boards and managements. Regardless of the size of AP4's ownership, as a responsible owner it is important to vote at general meetings. AP4 votes in accordance with AP4's ownership policy and on such matters that normally arise at general meetings, such as election of directors and remuneration matters.

Summary of resolutions in global votes

ISSUE	BOARD'S RECOMMENDATION			SHAREHOLDER PROPOSALS		
	Number	AP4 for	AP4 against	Number	AP4 for	AP4 against
Board members and release from liability	9,273	79%	11%	166	41%	58%
Incentive programmes	1,356	36%	62%	32	50%	50%
Adoption of financial statements, appointment of auditors, etc.	1,647	70%	26%	129	71%	29%
Protection against takeovers	101	41%	59%			
Capital structure, organisation, acquisitions	692	65%	35%			
Environment and health				44	75%	25%
Corporate governance				24	54%	46%
Social issues and human rights				42	55%	45%

Metrics and goals for Corporate Governance focus area

Corporate Governance is one of two prioritised sustainability areas in AP4's asset management. AP4 has the following goals for this work.

1 Participate on nomination committees by virtue of ownership stake

AP4 participated on 39 nomination committees in 2020, and in January 2021 was participating on 42 nomination committees ahead of the 2021 AGM season. During both years AP4 has participated in all except for one nomination committee where it was offered a seat, corresponding to 98% of the nomination committees. The Swedish ownership model creates a good balance between shareholders and company managements and is regarded as an international model.

2 Interview all or certain board members in connection with board evaluations

In a nomination committee's evaluation of a board, AP4 advocates that the nomination committee conducts its own interviews to gain a deeper understanding of how well the board is working and which complementary competences and experience the company is most in need of. This is an important complement to any written self-assessments that the board may have commissioned or to an external board evaluation. Ahead of the 2020 AGM season, AP4 interviewed board members in all but one company, corresponding to 98% of the companies in which AP4 served on the nomination committee. The reason why AP4 did not interview the board members for one company is that AP4 took a seat on the nomination committee after its work was already completed.

3 Advocate for greater diversity among board members, especially in terms of gender balance

To help ensure that Swedish companies have the best boards with relevant and complementary experience and competence, AP4 takes a broad and structured approach to its work in the nomination process. To ensure breadth in the selection of directors, AP4's goal is that on the nomination committees that AP4 participates on, at least one woman should be included as a final candidate in nominations for new board members, and the nomination committee shall strive to ensure that the Swedish Corporate Governance Code's recommendations on the proportion of women are met. On the nomination committees for 2020 AGMs on which AP4 participated, final candidates of both genders existed in 52% of the cases, and 15 (12) of newly elected directors were women, corresponding to 44% (44%).

4 Exercise voting rights at Swedish companies' AGMs

AP4 gives priority to companies in which it has major holdings, has a large share of votes, and such companies that address important issues of principle. During 2020 AP4 participated at the AGMs of 109 (87) Swedish companies, of which three (five) by proxy. This corresponds to 67% of the Swedish companies in which AP4 has investments in. During the prevailing circumstances, AP4 took advantage of the opportunity to vote by post at 77 AGMs in 2020.

5 Exercise voting rights at foreign companies' AGMs

AP4 gives priority to the largest companies in the respective markets – companies that the Council on Ethics of the AP Funds works with and companies through which AP4 supports an international initiative. AP4 voted at a total of 1,043 AGMs (1,025) of foreign companies during the 2020 AGM season, corresponding to 56% of AP4's holdings. In 2020 AP4 voted on 13,506 resolutions at these AGMs. AP4 reports on these individual resolutions on its website. With respect to most board recommendations for variable remuneration programmes and protection against takeovers, AP4 voted against the boards' recommendations. With respect to shareholder proposals regarding climate matters, health, corporate governance, and social issues and human rights, AP4 voted in favour of the shareholders' proposals in a majority of cases. Sometimes similar shareholder proposals are submitted to several companies regarding various sustainability matters. In cases where shareholders have submitted a proposal on a matter that a company has already presented or achieved, AP4 usually votes against the proposal. Consequently, AP4 does not support certain shareholder proposals. In cases where the share of votes for and against do not sum up to 100%, this is because AP4 abstained from voting. See the summary of resolutions in global votes on page 35.

6 Support initiatives that advocate for shareholders' rights and companies' work with sustainability

AP4 provides constructive views when proposals for shareholders' rights are submitted or updated. In this work AP4 often collaborates with other owners in various organisations and other forms of cooperation. During 2020 AP4 engaged itself in matters related to shareholders' rights, combating climate change and reducing greenhouse gas emissions, among other things. During the year, proposals were submitted that infringe upon shareholders' rights in the USA, such as regarding opportunities to submit proposals to general meetings. In Japan, issues arose regarding restrictions to how much foreign owners can own and act on in contacts with certain companies. These are examples of developments that are contrary to opportunities to act as a long-term and engaged owner. AP4 has therefore expressed its views through various organisations, such as the ICGN and PRI, as well as together with other shareholders. In the climate area, AP4 works in various cooperation initiatives. For example, AP4 is one of 545 global investors participating in Climate Action 100+, whose purpose is to influence the some 160 companies with the highest CO2 emissions to work on reducing their carbon footprints. Within the framework of Climate Action 100+, AP4 is participating in dialogues with three companies, of which Daimler and Volkswagen are two of the companies in the initiative that have set targets to be climate-neutral by 2039 and 2050, respectively.



CORPORATE GOVERNANCE

"Corporate governance work has become structured and professional, where the company's best interest is always the starting point."

Perspective

Arne Lööv

Head of Corporate Governance at AP4 for 10 years.

Joined AP4 as a fund manager in 1985.
Set to retire in 2021.

How has institutional corporate governance developed since the mid-1980s?

– Back then things were steered by a small number of large owners, and nomination committees didn't exist. AGM notices typically consisted only of an agenda, without recommendations or decision-making documentation. Other owners generally were given very little input. The first draft of AP4's corporate governance policy was presented in the 1986 Annual Report, where it touched upon the view of capital allocation and equal treatment of shareholders, among other things. There was quite a bit of cross-ownership, which did not work so well. Boards did not always have the required competence, and companies had seats on each other's boards. As a result, companies did not search for a very broad pool of new directors, and as a result, boards were not always composed of the most relevant and competent directors for the companies' needs. During this time, banks, pension funds and other institutional owners began growing in size and becoming more active in their ownership roles.

– What can be called the first Swedish nomination committee was formed in 1993, for Volvo. AP4 led the work together with a number of other institutional owners to form a nomination committee that submitted recommendations for a new board. This played out well and resulted in a broader board compared with previously.

– In 2005 the Swedish Corporate Governance Code took effect, more commonly referred to as "the Code". Companies on the stock exchange are different from each other, and therefore the Code is based on the "comply or explain" principle, which means that companies do not need to comply with the Code exactly, but if they

act in another way than set out by the Code, they must explain why. The Swedish Corporate Governance Board, which is responsible for the Code, represents various organisations in the capital market.

– Today our corporate governance work is structured and professional, where the company's best interest is always the starting point. Clear processes are in place for recruiting new board members. Interviewing board members ahead of the nomination process is also an important routine where many directors' views are obtained on the quality of the board work. Generally there is more order and structure, such as with respect to capital allocation and new issues. Transparency has increased, and today it goes without saying that it is the shareholders who own the company, which makes it harder for any individual owner to take over a company. There is a clear division of responsibility between the owners, the board and management. Internationally the picture is often different, where for example the board and management may in principle be the same persons, which makes it difficult to exercise active corporate governance work.

What has motivated you in your work with corporate governance?

– That it should be good for the company in question, and this requires a competent board and management. It is inspiring to see companies' opportunities develop and grow long-term. All companies are different, and proposing a board that is as good as possible for the company in question – that is where we can inject ourselves and do a good job. Personally I find it very exciting to see their businesses and devel-

opment opportunities, but also the challenges they face and how these are addressed.

How does corporate governance work abroad?

– For AP4, there is a difference in corporate governance work in Sweden and abroad. In Sweden we are a relatively large and well-known owner, but abroad we are a smaller actor with small ownership stakes. This means that we typically try to cooperate with others – preferably local owners that have the same view of corporate governance as AP4. An important piece of the puzzle in global corporate governance work is the Council on Ethics of the AP Funds, through which we can coordinate our efforts and more effectively leverage the resources of AP1-AP4.

What has been achieved over the years?

– Results come without a doubt through long-termism, which is an important part of AP4’s investment philosophy, and also by serving as an owner not only when things are going well, but also by supporting companies during tougher times. Most Swedish companies heed their owners’ views, such as through nomination committee work. The companies listen and often have the same goals as the owners. A lot has happened on the capital allocation issue – Class A and B shares are treated as financial equals in bid situations, for example. Globally, discussions are increasing on board compositions, and today there is greater transparency regarding directors’ fees. A lot of corporate governance work is facilitated by the fact that most countries today have some form of owner or company code of conduct.

– Diversity on company boards is one of the most important issues that has generated results over time – from basically having only searched for candidates among half the population to searching among the entire population. Clearly this doubles the chances of finding the right people. But it is important to keep in mind that diversity involves so much more than men and women. It is a broad concept that naturally includes age, background, education and professional experience, and all of these differences are needed to add dynamism and perspective to a board or management team. Most of the people with the competence and experience

being sought serve on the companies’ management teams. This is a bottleneck in the search for women. About 25% of these positions are held by women, which unfortunately limits the talent pool. Moreover, since demand is greater than supply, this can lead to women ending their operational roles a bit prematurely to instead become professional directors.

What is important in corporate governance work?

– That you work according to the individual company’s situation, so that the company is given an opportunity to grow and generate a long-term return. Of course, this includes sustainability in all areas. It facilitates things if a company has strong, well-defined owners with clear values and views, and that listen and discuss with other owners. We can be a valuable sounding board, which is inspiring and important. Even if a proposal in the end is in line with the principal owner’s recommendation, the issue has at least been thoroughly discussed.

– As in all development work, corporate governance is a matter of give and take – most companies listen, think long-term and want to develop. It is also good if a company knows what its owners expect.

– When I started at AP4, the fund managers back then were already focused on favourable returns and the companies’ best interests, and that is where long-termism became part of the investment philosophy. The AP Funds did not have such a good reputation back then in connection with the “October 4th Movement” and the Wage Earner Funds. But having originally been regarded as a “State owner”, AP4 today is regarded as a long-term and respected owner.

What does it mean that AP4 has corporate governance as an integrated part of its asset management?

– AP4’s ownership is based on a long-term engagement in the companies it has holdings in. Among other things this entails frequent contacts with companies, partly to give us the best possible insight into the company and partly to give the company an understanding of what we as owners expect from the company over time: that the company will be given an opportunity to develop in a long-term sustainable way.

HR – for a sustainable work life

AP4 aspires to be a workplace for engaged and competent employees who can continuously develop based on a common set of core values. The vision for strategic HR work is therefore that together we will achieve AP4's overall goals and develop operations by having the right competence in the right place.

Strategic HR work includes identifying priorities and activities which in a sustainable manner contribute to delivery of high returns at low costs. AP4 conducts a cost-efficient, specialised and knowledge-intensive operation, which entails a dependence on individual persons. Minimising personnel risk requires that we attract, engage and develop our employees so that they all have the conditions needed to perform their jobs, regard AP4 as an attractive employer and thereby contribute to the fulfilment of our mission over the long term. One concrete tool for creating these conditions is the competence inventorying that AP4 conducts, which results in development plans at both the unit and individual levels. In this way we ensure both short- and long-term progress in our operations. On top of this, AP4 conducts annual succession planning to secure its need for competence and be able to offer its employees development opportunities. AP4 also conducts market salary surveys to make sure there are no unreasonable pay differences between women and men in the organisation.

Long-term good work life

The work environment is a natural part of operations. This pertains to both the physical work environment, but also the psychosocial environment. To promote long-term good health, all employees are offered regular health check-ups and a fitness subsidy, among other things. AP4 also offers voluntary health insurance that provides a range of health benefit. To succeed with our work environment initiatives, our employees' participation, involvement and development play a central role. Ensuring a good work environment also includes identifying risks in the organisation. Managing key competence is such an area that is becoming increasingly important in this context. In connection with recruitment, equal opportunity and diversity naturally play a part in both processes and results. In cases where AP4 uses a recruiting firm, a requirement is made that both women and male candidates be represented in the selection. The most qualified person of the gender that is under-represented is always called to a job interview provided that the competence criteria are met. Among final candidates, there must always be a candidate from the under-represented gender in the area in question.

As part of the work on strengthening culture and the work environment as well as operations and results, AP4 conducts yearly employee surveys. The aim is both to ensure a long-term good work environment, but also to identify areas of greatest significance for ensuring that employees enjoy their work and are in good health, feel motivated and engaged, and continue to develop in tandem with the operations. Based on the results, an action plan will be worked out along with all employees from AP4 as well as within each business unit. The action plan includes identified improvement areas and areas to be upheld, which are then followed up continuously during the year. The 2020 employee survey showed improved results in all areas, which shows that we managed the year's challenges in a satisfactory manner. Our goals for improved results in 2020 compared with 2019 with respect to performance, leadership, employeeship and goal quality were all met by a wide margin. The results of the survey were reported internally and addressed in accordance with AP4's process for development work.

Culture and values

The sustainability perspective is a central part of all areas of the HR strategy. A sustainable work life and leadership are important for achieving overall goals. Competent and engaged employees are a success factor in a knowledge-intensive operation such as ours, where the company culture is one of the most essential conditions for building a successful and sustainable organisation. As AP4 works in an environment where specialised and deep competence are basic preconditions, it is important to foster a culture that promotes a shared view of professionalism, innovative thinking, implementation strength and cooperation. During 2020 AP4 continued its work on developing and building a culture in line with what we aspire to achieve and the values we have in the operations. Equal treatment and gender equality are practised in all aspects of work with AP4's culture, our employees and the organisation. During 2020 focus was on leadership development, work with value and competence development from a sustainability perspective. This was especially important in a year such as 2020, as the Covid-19 pandemic



significantly affected how we worked during the year. AP4 held the year's employee conference virtually, and the conference focused in large part on the new ways of working that we needed to adapt ourselves and the organisation to during the continuing pandemic. New ways of working put new demands on both leadership and employeeship, which AP4 is continuously striving to live up to.

Rules and processes for employee ethics

Clear rules and guidelines for employee-related ethical matters lay out the high expectations that are put on AP4 as a government agency and manager of public pension funds, which

reduces trust risk. Every year AP4's board of directors therefore adopts a personnel- and ethics-related policy that is based on both statutory regulations and ethics rules. On top of this policy, every year the CEO sets a number of internal guidelines which, among other things, lay out rules for matters such as public tenders, remuneration and benefits, business travel, entertainment, employees' personal trading in securities, inside information and side jobs. The policy also covers bribery and conflicts of interest. All employees are responsible for adhering to this policy and its underlying guidelines. Any moral or complex dilemmas that may arise are to be addressed in consultation with the employee's immediate manager.

KEY RATIOS – EMPLOYEES	2020	2019	2018	2017	2016
Number of employees, average	61	56	54	54	53
Of whom, women, %	37	35	33	35	37
Number of persons in Executive Management, average	7	9	7	7	8
Of whom, women, %	33	44	25	27	25
Average age	44	45	43	44	44
Employee turnover, %	3	9	19	11	11
Sickness-related absence, %	2.3	2.5	1.6	1.6	3.3

AP4'S DIRECT ENVIRONMENTAL IMPACT	2020	2019	2018	2017	2016
Total electricity use in own offices, MWh	87	103	107	111	113
District cooling use in own offices, MWh	43	46	51	44	89
Use of heat in own offices, MWh	37	40	42	37	104
Use of water, m ³	262	433	433	413	810
Use of paper, tonnes	0.6	1.0	0.7 ¹	1.1	1.0
Ecolabelled paper as share of total paper use, %	100	100	100	100	100
Business travel by air, km 10,000s	11	54	51	46	57
Business travel by air, tonnes CO ₂ emissions	12	60	57	52	63

¹Change of supplier. Use is based partly on standardised calculation.

Directors' report 2020

With a positive return of 9.6% (21.7%) after costs, corresponding to a net result of SEK 39.3 billion (75.2), fund capital grew to SEK 449.4 billion (418.0). The Covid-19 pandemic had a significant impact on the market's development in 2020.

Result and fund capital

Fund capital increased by SEK 31.4 billion (68.7) to SEK 449.4 billion (418.0). The positive change in fund capital consists of the net result for the year of SEK 39.3 billion (75.2), i.e., the return for the year less management costs, and net payments of SEK 7.9 billion (6.5) to the public pension system. AP4 has paid out a combined total of SEK 65.1 billion to the new pension system since net flows became negative in 2009.

SEK billion	2020	2019
Fund capital, opening balance	418.0	349.3
Net payments to the pension system	-7.9	-6.5
Net result for the period	39.3	75.2
FUND CAPITAL, CLOSING BALANCE	449.4	418.0

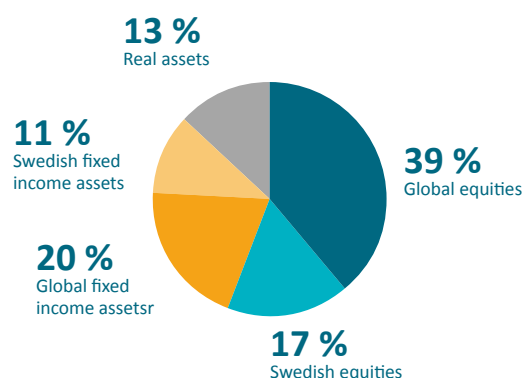
Impact of Covid-19

The Covid-19 pandemic dominated the market's development during 2020. A relatively positive start to the year was abruptly halted in March in pace with the global spread of the coronavirus. Extensive restrictions to prevent the spread contributed to an exceptionally fast and deep economic slowdown, resulting in a dramatic market downturn during the first quarter. Overall, strong financial and monetary policy support measures, slowing of the spread and the development of vaccines contributed to a strong market recovery during the rest of the year.

The AP Funds' statutory investment mandate provides very good conditions to act long-term and thereby withstand major market movements when it benefits long-term returns. This proved to be significant asset in the very turbulent market during the first half of 2020, which gave AP4 an opportunity to, for example, increase its investments in equities as well as corporate bonds when prices fell indiscriminately during the first quarter.

In view of the Covid-19 situation and the uncertainty it has created for companies' development, AP4 has conducted proactive dialogues with companies and owners, resulting in

Asset allocation



AP4's participation in several new issues to support long-term sound companies. AP4 also took advantage of the temporary opportunity provided by a Parliament decision in 2020 that allows the AP Funds to acquire up to a 15% voting stake in listed Swedish companies in connection with new issues.

The Covid-19 pandemic had a significant impact on how AP4 conducted its asset management activities in 2020. The change-over to remote working and digital work processes worked well. AP4 held the year's employee conference virtually, and the conference focused in large part on new ways of working that the operations have had to adapt to. The pandemic has put new demands on both leadership and employeeship, which AP4 is continuously working with. The annual employee survey showed positive results.

Portfolio allocation

AP4 analyses its obligations in the pension system every three years in an ALM analysis aimed at setting AP4's long-term return target and creating an understanding for the suitable long-term allocation to equities. In this analysis AP4 strives to strike a balance between the anticipated return and risk that best contrib-

utes to a strengthening of the pension system while at the same time the risk for activating the “brake” is limited without one generation of pensioners benefiting at the expense of another. An updated analysis of the pension system’s assets and liabilities was conducted in 2020, which has led to a reduction in AP4’s long-term real return target over 40 years to 3.5% from 4.0%. The long-term range for AP4’s allocation to equities is unchanged at 50%-70%, which ensures a well-considered balance between the system’s long-term financial position and the risks for balancing.

The Dynamic Normal Portfolio (DNP) embodies the Board’s decisions on AP4’s medium-term asset allocation. The DNP is a benchmark portfolio comprising several market indexes – where such relevant indexes exist – such as for liquid, listed equities and fixed income instruments. For real assets such as unlisted properties and infrastructure, the target consists of a required real rate of return equal to the CPI plus three percentage points. Ahead of 2021 the long-term real return requirement was lowered from 4.0% to 3.5% per year. In the DNP, holdings of real assets have been increased by 1 percentage point, from 14% to 15%, and a corresponding decrease has been made of global fixed income instruments, from 23% to 22% of the DNP.

AP4’s long-term mission and the higher anticipated return for equities compared with government bonds justifies a higher allocation to equities. Listed equities, broken down into global and Swedish, accounted for 55.2% of assets at year-end. AP4 has relatively high exposure to Sweden in equities and fixed income investments, which is justified in part by a higher anticipated return relative to many other markets and in part by favourable opportunities for AP4 to generate excess returns and achieve lower currency hedging costs.

AP4 has defined real assets, such as real estate and infrastructure, as a separate asset class in the portfolio. What characterises real assets is that they generally have long-term and comparatively stable cash flows that are coupled to inflation. As a result, these assets contribute to stable returns and diversification of risk and

are suitable components in the portfolio for a long-term investor such as AP4.

Operative portfolio

The total return for AP4 was 9.7% (21.8%) before costs and 9.6% (21.7%) after costs. The portfolio’s return is evaluated in relation to the Dynamic Normal Portfolio (DNP). For 2020 the active return was 2.4 (4.4) percentage points. Over the five-year evaluation period, the average excess return was 1.8% (2.3%) per year.¹

Management of asset classes

The various asset classes’ market values and exposure at year-end 2020, the portfolio return, and the return and result contributions are reported in the table on page 43.

Currency exposure

AP4 hedges certain foreign assets. Currency exposure, i.e., the share of assets in foreign currency that is not neutralized through currency hedges, was 21.0% (19.8%) of total at year-end. The return contribution from AP4’s open currency exposure was -2.1 percentage points (1.6). Over a five-year period, AP4’s open currency exposure has contributed an average of 0.4 percentage points (1.2) to the return per year.

Other assets

Other assets consist mainly of asset allocations in the form of so-called overlay mandates over several time horizons. The return contribution was -0.0 percentage points (0.2).

Share of internal and external asset management

At year-end 2020, 86% (85%) of assets were managed internally, and 14% (15%) of assets were managed externally. AP4 manages assets internally when an aggregate assessment shows that internal management can achieve an equally good or better return at a lower cost.

Several-year overview	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fund capital (SEK bn)	449.4	418.0	349.3	356.6	333.9	310.0	294.9	259.7	229.6	210.0	212.8
Net flows to the pension system (SEK bn)	-7.9	-6.5	-6.8	-7.4	-6.6	-4.9	-5.1	-6.9	-3.8	-1.2	-4.0
Net result for the year (SEK bn)	39.3	75.2	-0.5	30.1	30.5	20.1	40.2	37.0	23.4	-1.6	21.2
Return, total portfolio before costs (%)	9.7	21.8	-0.1	9.2	10.1	6.9	15.8	16.5	11.3	-0.7	11.0
Return, total portfolio after costs (%)	9.6	21.7	-0.2	9.1	10.0	6.8	15.7	16.4	11.2	-0.7	10.9
Return, total portfolio after costs, annualised 5 yrs (%)	9.8	9.3	8.1	11.5	12.0	9.7	10.5	11.6	3.3	1.6	3.8
Return, total portfolio after costs, annualised 10 yrs (%)	9.7	9.9	9.9	7.3	6.7	6.7	7.6	7.2	7.2	4.1	3.6
Standard deviation ex-post, total portfolio (%) ²	13.6	5.3	6.4	4.1	7.3	8.8	6.0	5.6	5.6	9.2	7.5
Sharpe ratio total portfolio, ex-post (%) ²	0.7	4.2	0.1	2.5	1.5	0.8	2.5	2.8	1.8	neg	1.4
Asset management costs, excl. commission expenses (%)	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.08	0.08	0.08	0.09
Asset management costs incl. commission expenses (%)	0.09	0.10	0.10	0.10	0.10	0.11	0.11	0.11	0.10	0.10	0.10

¹ For the period 2016-2017, active return pertains to the accumulated excess return from AP4’s previous tactical and strategic asset management with investment horizons of 0-3 years and 3-15 years, respectively, in relation to AP4’s previous reference portfolio, the Normal Portfolio.

² Refers to daily return data.

ASSET CLASS	Market value, SEK bn	Portfolio return, %	Exposure, ¹ %	Return contribution, %	Net result contribution, SEK bn
Global equities	177.7	13.5	39.6	5.5	22.7
Swedish equities	75.2	30.2	16.7	4.8	19.1
Global fixed income	90.1	4.0	20.0	0.8	3.4
Swedish fixed income	47.6	1.5	10.6	0.2	0.7
Real assets	58.9	5.0	13.1	0.6	2.9
Other assets ²	0.0	0.0	0.0	-0.0	-0.1
Currencies	0.0	-2.1	0.0	-2.2	-9.1
TOTAL INVESTMENTS³	449.5	9.7	100.0	9.7	39.6

¹ Underlying values of derivative instruments in the passive allocation are distributed among the respective asset classes.

² Consists mainly of various overlay mandates.

³ Portfolio return, return contribution and net result contribution before costs. The portfolio return and return contribution after costs was 9.6%. The net result contribution after costs was SEK 39.3 billion.

Exemplary asset management and sustainability development

During 2020 a business environment analysis was conducted of the climate transition and its impact on various industries and specifically the energy sector.

AP4 has also further developed its quantitative company analysis within its low-carbon strategies in the global equity management. New, forward-looking data sources regarding companies' actions in relation to the Paris Agreement as well as their ability to manage carbon pricing have been integrated with existing data on the companies' historical carbon intensity. These now form the basis both for divestments of holdings in AP4's entire internally managed global equity portfolio and for company selection in the quantitatively managed low-carbon strategies.

During 2020 AP4 also built up an internal group for fundamental thematic global equities management. Based on AP4's thematic sustainability analysis and quantitative company analysis, among other things, this group conducts fundamental company analyses and equity selections in AP4's global equity portfolio. In an initial step the energy sector has been analysed, which has resulted in an extensive restructuring of that sub-portfolio. AP4 intends to continue with this work going forward and will address additional resource-intensive sectors. The internal group also invests in companies with clear sustainability agendas that contribute to and benefit from the transition to a sustainable society.

During the year AP4 took its owner responsibility and served on 39 nomination committees ahead of annual general meetings in 2020 and at year-end had representation on 42 nomination committees for annual meetings in 2021. In 2020 AP4 voted at the annual general meetings of 109 Swedish companies and 1,043 companies internationally. AP4 conducts an active dialogue with its portfolio companies in an effort to develop long-term sustainability work.

During 2020 AP4 made new commitments of SEK 6 billion in investments in unlisted companies where sustainability is a significant component in the business strategy.

Portfolio risk

AP4 has high exposure to equities, which is necessary given the goal to generate a high real rate of return over time. These

consist mainly of listed, liquid shares that are invested globally. During the past year, portfolio risk for the operative portfolio, measured with a 12-month historical standard deviation, increased to 13.6% (5.3%) at year-end. This increase in portfolio risk in 2020 is attributable to the exceptionally turbulent market development resulting from the Covid-19 pandemic, with stock market declines during the first quarter and thereafter a strong recovery during the rest of the year.

Using short-term changes in market movements as a measure of risk is standard practice, but it entails a risk for inaccuracy due to AP4's very long-term investment horizon. For this reason, AP4 works with several investment horizons up to 40 years so that it can take developments in the near term into account without losing sight of the long-term target.

Active risk for the operative portfolio is measured in relation to the DNP. Active risk for AP4's operative asset management, measured with a 12-month historical standard deviation, increased slightly during the year and was 1.7% (1.2%) at year-end.

AP4's open currency exposure is mainly owing to a decision from a risk mitigation perspective, where the level is regulated primarily through currency forward contracts. Open currency exposure in the operative portfolio in 2020 was between 16.7% and 21.0% and consisted mainly of exposure to USD, which weakened against the Swedish krona during the year. At year-end, open currency exposure was 21.0% (19.8%).

Interest rate risk, measured in terms of modified duration, fluctuated between 3.6% and 5.1% during the past year, which is the limit interval that has been set for the fixed income portfolio. At year-end, modified duration of the fixed income portfolio was 3.9% (4.0%).

The share of listed AAA¹ credit risk classified bonds decreased during the year and was 63% (70%) of the fixed income portfolio at year-end. The share of BBB¹-rated bonds at year-end was 24% (21%).

Exposure to issuers

AP4's ten largest exposures to issuers together amounted to slightly more than SEK 118 billion (131). Of these, 40% consisted of sovereign exposures and 28% consisted of exposures to the

¹ The credit risk classification presented (rating) pertains to an internal standard. The assessment in this standard for 2020 is based on the rating issued by the selected rating agency (Moody's Analytics UK Ltd).

banking and financial sector. AP4's sovereign exposures with a credit risk classification below AAA¹ in the euro zone was unchanged compared with the preceding year-end. The ten largest holdings in banking and the financial sector represented a combined exposure of SEK 48 billion (54).

Cost-efficient asset management

AP4's total management cost was 0.09% (0.10%), measured as a percentage of average fund capital. The management cost consists of operating expenses and commission expenses. Operating expenses consist mainly of personnel costs, information costs and IT costs. Commission expenses consist mainly of fees paid to external asset managers and custodian fees. AP4's operating expense ratio, which expresses operating expenses as a percentage of average fund capital, was 0.06% (0.06%). AP4's commission expense ratio was 0.03% (0.04%).

Management costs	2020	2019
Operating expenses, SEK m	245.6	231.3
Commission expenses, SEK m	138.2	138.9
Operating expense ratio, % ¹	0.06	0.06
Operating expense ratio, % ²	0.09	0.10

¹ Operating expenses as a percentage of average fund capital.

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

Collaboration with other AP Funds

For many years AP1-AP4 and AP7 have had well-established forms of cooperation, where the joint collaboration Council is the gathering body. The AP Funds cooperate with each other if there are good reasons in areas that do not directly affect the investment operations or risk inhibiting competition between the AP Funds. The Funds are to cooperate to achieve cost and resource efficiency as well as to share experiences, knowledge and ways of working between their organisations. The result of this collaboration should increase cost-efficiency for the AP Funds without affecting their independence and the diversification of the respective Funds' asset management models.

During 2019 the AP Funds took an additional step towards greater efficiency and knowledge-sharing in the various collaboration groups by coordinating their ways of working and establishing common guidelines. Every year each collaboration group formulates its own mission description and an action plan for the coming financial year, which is followed up and reported bi-yearly to the Collaboration Council. At the end of the year this work is summarised in a report to the CEOs of the respective funds, which is used as documentation for the government's annual evaluation of the AP Funds.

Collaboration projects in 2020

The collaboration groups continued their collaboration during 2020 by using digital platforms to meet and share information. Even though there was strong focus during the year on maintaining internal operations within the respective AP Funds during the pandemic, it was possible to use the collaboration groups as a channel to share information and learn from each other, not least concerning how to conduct work both at and away from the office. Cooperation was conducted to study the issue of how to

best contribute to greater transparency surrounding profit distribution for unlisted assets, and it was determined that the best conditions for influencing transparency in the industry in the right direction and contributing to the development of a uniform reporting standard could be achieved by joining ongoing initiatives together with other global institutional investors. Other examples of areas in which the AP Funds collaborated during the year include procurement, innovation, new technology and information security. A stakeholder dialogue was conducted during the autumn, and joint communication activities are also conducted on a regular basis. Apart from regular joint meetings within each collaboration group, a great deal of cooperation is conducted in the regular contacts between employees of the various Funds, in which they can discuss matters in the common areas.

Changes in personnel and remuneration

Employee turnover at AP4 was 3% in 2020. At year-end, the number of employees was 65 (53).

For a manager of public pension funds it is essential that employee remuneration levels are reasonable, justifiable and explainable. AP4 strives to ensure that its remuneration is in line with the market and enables AP4 to recruit and retain talented people. AP4 shall not be a salary leader. The Board bears ultimate responsibility for remuneration issues. Every year the Board adopts principles for remuneration and other terms of employment. The Board is responsible for monitoring compliance with the government's guidelines for terms of employment for senior executives in the AP Funds. The Board solicits the help of external consultants to monitor compliance with the remuneration principles. The Board has appointed a remuneration committee that is tasked with serving in an advisory role for the Board and for drafting remuneration matters for the CEO and senior executives. The Remuneration Committee also conducts drafting work for matters related to AP4's principles for remuneration and other terms of employment for all employees. Total remuneration for an AP4 employee consists of fixed salary, variable salary, pension provisions and other benefits. The CEO, senior executives, and the heads of Risk Control and Compliance do not receive any variable remuneration. For other employees, variable remuneration can amount to a maximum of two months' salary. Variable remuneration may be awarded when clear and measurable goals have been achieved. Variable remuneration is based on group-oriented and individual quantitative performance goals measured over a rolling three-year period. Variable remuneration is payable only if AP4 posts a positive total net result for the financial year. Other benefits are of limited value and are offered to all employees. Examples include health insurance, group insurance and fitness subsidies. AP4 also has ten parking spaces that employees can use, for which they were taxed for the benefit through March of 2020. For the period April–December the parking spaces could be used by employees without any benefits taxation owing to temporary tax exemption for access to free parking at the workplace owing to the Covid-19 response. Further information is provided in Note 6 and in AP4's Fund Governance Report.

Significant events after the end of the financial year

No significant events have taken place since year-end 2020 that require disclosure.

Income statement

SEK million	Note	2020	2019
OPERATING INCOME			
Net interest income	2	1,489	2,027
Dividends received		5,002	6,035
Net income, listed shares and participations	3	39,246	50,676
Net income, unlisted shares and participations	4	1,940	5,589
Net income, fixed income assets		2,829	3,322
Net income, derivative instruments		280	2,018
Net income/loss, changes in exchange rates		-11,079	5,939
Commission expenses	5	-138	-139
Total operating income		39,569	75,467
OPERATING EXPENSES			
Personnel costs	6	-155	-136
Other administrative expenses	7	-91	-95
Total operating expenses		-246	-231
NET RESULT FOR THE YEAR		39,323	75,236

Balance sheet

SEK million	Note	31/12/2020	31/12/2019
ASSETS			
Shares and participations, listed	8	274,032	248,771
Shares and participations, unlisted	9	48,017	42,897
Bonds and other fixed income assets	10	110,325	115,965
Derivative instruments	11	12,628	6,307
Cash and cash equivalents		5,112	4,496
Other assets	12	1,201	3,167
Prepaid expenses and accrued income	13	815	1,030
TOTAL ASSETS		452,130	422,633
LIABILITIES AND FUND CAPITAL			
Liabilities			
Derivative instruments	11	1,408	1,112
Other liabilities	14	1,075	2,865
Prepaid income and accrued expenses	15	198	628
Total liabilities		2,681	4,605
Fund capital			
	16		
Fund capital, opening balance		418,028	349,312
Net payments to the pension system		-7,902	-6,520
Net result for the year		39,323	75,236
Total fund capital		449,449	418,028
TOTAL LIABILITIES AND FUND CAPITAL		452,130	422,633
Pledged assets, contingent liabilities and commitments	17		

Notes to the income statement and balance sheet

The Fourth Swedish National Pension Fund (AP4), corporate identity number 802005-1952, is one of the buffer funds in the Swedish national pension system and has its registered office in Stockholm. The Annual Report for the 2020 financial year was approved by the Board of Directors on 18 February 2021. The income statement and balance sheet are subject to government approval.

1 Accounting and valuation policies

According to the Swedish National Pension Funds Act (Lagen (2000:192) om allmänna pensionfonder), the annual report shall be prepared in accordance with generally accepted accounting principles, whereby the assets in which AP4's funds are invested shall be recognised at market value. Based on this premise, the First, Second, Third and Fourth Swedish National Pension Funds have drawn up and applied uniform accounting and valuation policies, as summarised below.

The AP Funds' accounting and valuation policies are gradually being adapted to International Financial Reporting Standards (IFRS). A complete adaptation to IFRS would not materially affect the reported results and capital. AP4 meets the requirement to be classified as an investment company in accordance with IFRS 10. In the current IFRSs the only major difference is that a statement of cash flows has not been prepared and that IFRS 16 Leases has not been applied.

Trade date accounting

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

Net accounting

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

Translation of foreign currencies

Transactions in foreign currency are translated to Swedish kronor (SEK) at the exchange rate in effect on the transaction date. On the balance sheet date, assets and liabilities in foreign currency are translated to SEK at the exchange rate in effect on the balance sheet date. Changes in the value of assets and liabilities in foreign currency are broken down into a part attributable to the change in value of the asset or liability in local currency and to a part attributable to the changed exchange rate. The exchange gain or loss that arises from changes in exchange rates is reported in the income statement on the line "Net income/loss, changes in

exchange rates".

Shares in subsidiaries and associated companies

According to the Swedish National Pension Funds Act, both shares in and loans to subsidiaries and associated companies are measured at fair value. Fair value is determined using the same methods used for unlisted shares and participations. There is no requirement to prepare consolidated accounts. Loans to subsidiaries and associated companies that are intended to be held to maturity are measured at fair value in accordance with the fair value option provided in IFRS 9. However, the entire change in value is reported as part of the shareholding on the line Net income, unlisted shares and participations.

Valuation of financial instruments

All of AP4's investments are measured at fair value, whereby realised and unrealised changes in value are recognised through profit or loss. The line Net income/loss per asset class thus includes realised and unrealised gains or losses. Equity instruments held for trading are therefore measured at fair value through profit or loss. Debt instruments held for trading are therefore measured at fair value through profit or loss. Loans to subsidiaries and associated companies are intended to be held to maturity; however, the fair value option is used here in order to be in compliance with the requirements in the Swedish National Pension Funds Act for fair value measurement. The AP Funds measure all of their assets at fair value. Following is a description of how fair value is determined for AP4's various investments.

Listed shares and participations

For shares and participations traded in a regulated market or trading platform, fair value is determined based on official year-end market quotations according to AP4's designated index, usually an average price. Holdings not included in an index are measured at quoted prices observable in an active market. Brokerage fees paid are recognised as expenses under Net income, listed shares.

Unlisted shares and participations

For shares and participations not traded on a regulated market or trading platform, fair value is determined based on a valuation obtained from the counterparty or other external party. The reported value is updated when a new valuation has been obtained and is adjusted for any cash flows up to the end of the accounting period. In cases where AP4 has good reason to believe that the valuation is incorrect, an adjustment is made of the received valuation.

Valuations of unlisted participations are made in accordance with the International Private Equity and Venture Capital Valuation (IPEV) Guidelines, or equivalent principles, and are to be

based primarily on transactions with third parties, however, other valuation methods may be used.

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

Bonds and other fixed income assets

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

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

Derivative instruments

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

Derivative contracts with positive fair value on the balance sheet date are reported as assets, while contracts with a negative fair value are reported as liabilities. Changes in value attributable to changes in exchange rates are reported in the income statement under "Net income/loss, changes in exchange rates", while other changes in value are reported as "Net income, derivative instruments".

Repurchase transactions

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

Securities lending

Securities lent are reported on the balance sheet at fair value, while the compensation received for the loan is reported as interest income in the income statement. Collateral received for loaned securities can consist of securities and/or cash. In cases

where AP4 has the right of disposal over cash received as collateral, the collateral is reported on the balance sheet as an asset and corresponding liability. In cases where AP4 does not have disposal over the security, it is not reported on the balance sheet, but is specified separately in a note under the heading "Pledged assets, contingent liabilities and commitments". This item also includes the value of securities on loan and their related collateral.

Items recognised directly against fund capital

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

Commission expenses

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

Asset management fees for unlisted shares and participations are recognised as an acquisition cost and are therefore included in the unrealised result.

Operating expenses

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

Taxes

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

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

Amounts in SEK millions

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

2 Net interest income

	2020	2019
NET INTEREST INCOME		
Bonds and other fixed income assets	1,429	1,954
Other interest income	60	73
Total interest income	1,489	2,027
INTEREST EXPENSE		
Other interest expenses	0	0
Total interest expense	0	0
NET INTEREST INCOME	1,489	2,027

3 Net income, listed shares and participations

	2020	2019
Net income, listed shares and participations	39,301	50,714
Less brokerage fees	-55	-38
NET INCOME, LISTED SHARES AND PARTICIPATIONS	39,246	50,676

4 Net income, unlisted shares and participations

	2020	2019
Realised gains	97	751
Unrealised changes in value	1,843	4,838
NET INCOME, UNLISTED SHARES AND PARTICIPATIONS	1,940	5,589

External asset management fees for unlisted assets are reported as part of the asset's cost and are thereby charged against unrealised net income for unlisted assets. Consequently, refunded management fees have a positive effect on unrealised income. During the year a total of SEK 114 (121) million was paid in asset management fees for unlisted assets, of which SEK 114 (121) million qualifies for refunds. Also during the year, SEK 20 (53) million was refunded, and the unrealised result for unlisted shares and participations was thereby negatively affected by SEK 94 million (-68).

5 Commission expenses

	2020	2019
External asset management fees, listed assets	-123	-125
Other commission expenses, including custodian fees	-15	-14
TOTAL COMMISSION EXPENSES	-138	-139

Commission expenses do not include performance-based fees. Performance-based fees for the year totalled SEK 96 (13) million and reduced net income for the respective asset classes.

6 Personnel

Number of employees	2020		2019	
	Total	Women	Total	Women
Average number of employees	61	22	56	20
Number of employees, 31 December	65	26	53	20
Number of persons in Executive Management, 31 December	7	2	9	4

Salaries and fees

Directors' fees are set by the government and were increased for 2020 pursuant to government decision FI2020/000074/FPM of 9 January 2020. The Board sets the terms of employment for the CEO based on a recommendation from the Remuneration Committee. Remuneration for the CEO, senior executives, and the respective heads Risk Control and Compliance, consists of a fixed salary. Every year, under commission by the Board of Directors and Remuneration Committee, an external consultant performs an examination of remuneration levels for senior executives of AP4. The Board can thereby ascertain that AP4 complies with the

government's guidelines for remuneration of senior executives of the AP Funds. Read more about remuneration under the heading "Remuneration at AP4" on pages 68–69.

Variable remuneration

The variable remuneration plan is part of AP4's remuneration policy and is adopted yearly by the Board. The plan covers all employees employed more than six months, except for the CEO, senior executives, and the respective heads of Risk Control and Compliance. The basic principle is that variable remuneration shall be paid for the achievement of excess returns relative to the benchmark and reference indexes, provided that AP4 shows a positive total result for the financial year. The maximum outcome for a full-time equivalent employee is two months' salary. For 2020, a total of SEK 6,045 thousand (6,384) was expensed for variable remuneration, excluding social security costs.

Pensions and similar benefits

The CEO's employment contract includes special stipulations for pension benefits and severance pay. The ordinary retirement age is 65, however, an employee has the right to remain in service until the end of the month in which he/she turns 68.

Starting in 2023, pursuant to the Employment Protection Act (*Lag om anställningsskydd – LAS*), an employee has the right to remain in service until the end of the month in which he/she turns 69. A mutual notice period of six months applies for the CEO. In the event AP4 serves notice, the CEO is also entitled to severance pay equal to 18 months' salary. Severance pay is paid out monthly and is reduced by any other income from salary, assignments or own business.

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

All employees are entitled to exchange a portion of their gross salary for pension contributions. In such cases, the pension contribution is increased by 5.8%, which corresponds to the difference between AP4's costs for payroll tax and its cost for the special employer's payroll tax on pension contributions. The procedure is cost-neutral for AP4. All employees are offered supplemental health insurance, a benefit for which they are taxed in accordance with the tax rules that apply at any given time. All persons employed before 1 January 2007 have, in addition to benefits under the pertinent collective agreement, disability insurance for periods of illness lasting longer than three months, for which a benefit is payable to cover 90% of salary amounts lower than 20 times the Base Amount and 80% of salary amounts higher than 20 times the Base Amount. The maximum benefit corresponds to 40 times the Base Amount. Benefits paid out are decreased by benefits payable from Försäkringskassan, SPP and any other insurances.

Other benefits

All employees have the opportunity to purchase group life insurance that is taxed as an employment benefit. AP4 currently has ten parking spaces that employees may use, for which they were taxed for the benefit through the month of March. For the period

April–December the parking spaces could be used by employees without any benefits taxation owing to temporary tax exemption for access to free parking at the workplace owing to the Covid-19 response. The value of these employment benefits in 2020 was SEK 314 thousand (377).

6 Cont. Personnel

Personnel costs 2020, SEK thousand	Salaries and remuneration	Variable remuneration	Pension costs	Of which, salary exchange	Social security costs ²	Total
Chair of the Board Sarah McPhee	200	-	-	-	20	220
Other board members ¹	950	-	-	-	228	1,178
CEO Niklas Ekvall	3,899	-	2,439	987	1,817	8,155
OTHER EXECUTIVE MANAGEMENT MEMBERS						
Head of Fundamental Equities Per Colleen	2,955	-	1,236	212	1,228	5,419
Head of Finance & Business Operations Helene Lundkvist, through 31/5/2020	792	-	273	-	315	1,380
Head of Risk & Business Support Nicklas Wikström	1,723	-	968	317	776	3,467
General Counsel Theresa Einarsson	1,348	-	1,060	364	681	3,089
Head of Sustainability, Finance & Communication Tobias Fransson	2,161	-	853	-	886	3,900
Head of Strategic Allocation & Quantitative Analysis Marcus Blomberg	2,874	-	955	-	1,135	4,964
Head of Alternative Investments Jenny Askfelt Ruud	2,129	-	750	-	851	3,730
Other employees	61,889	6,045	21,436	2,168	26,388	115,758
Total	80,920	6,045	29,970	4,048	34,325	151,260
Other personnel costs						3,466
TOTAL PERSONNEL COSTS						154,726

¹ Individual directors' fees are reported in the Fund Governance Report.

² Social security costs also include payroll tax.

Personnel costs 2019, SEK thousand	Salaries and remuneration	Variable remuneration	Pension costs	Of which, salary exchange	Social security costs ²	Total
Chair of the Board Sarah McPhee	100	-	-	-	31	131
Other board members ¹	513	-	-	-	119	632
CEO Niklas Ekvall	4,732	-	1,444	-	1,837	8,013
OTHER EXECUTIVE MANAGEMENT MEMBERS						
Head of Fundamental Equities Per Colleen	2,925	-	1,192	190	1,208	5,325
Head of Human Resources Anette Segercrantz	985	-	181	-	353	1,519
Head of Finance & Business Operations Helene Lundkvist	1,895	-	538	-	726	3,159
Head of IT & Risk Nicklas Wikström	1,687	-	956	317	762	3,405
General Counsel Theresa Einarsson, from 1/6/2019	806	-	377	-	345	1,528
General Counsel Ulrika Malmberg Livijn, through 31/8/2019	1,194	-	494	85	495	2,183
Head of Strategy & Sustainability Tobias Fransson	2,137	-	766	-	857	3,760
Head of Strategic Allocation & Quantitative Analysis Marcus Blomberg	2,891	-	951	-	1,139	4,981
Head of Alternative Investments Jenny Askfelt Ruud	1,987	-	610	-	772	3,369
Other employees	47,509	6,384	17,664	2,146	21,155	92,712
Total	69,361	6,384	25,173	2,738	29,800	130,718
Other personnel costs						5,229
TOTAL PERSONNEL COSTS						135,947

¹ Individual directors' fees are reported in the Fund Governance Report.

² Social security costs also include payroll tax.

7 Other administrative expenses

	2020	2019
Cost of premises	11	11
Information and IT costs	62	58
Purchased services	11	17
Other administrative expenses	7	9
TOTAL OTHER ADMINISTRATIVE EXPENSES	91	95
THE ITEM PURCHASED SERVICES INCLUDES FEES PAID TO THE ACCOUNTING FIRM AS FOLLOWS:		
Audit assignment, PwC	1.0	1.0
Other audit services, PwC	0	-
TOTAL FEES PAID TO ACCOUNTING FIRM	1.0	1.0

8 Shares and participations, listed

	31/12/2020 Fair value	31/12/2019 Fair value
Swedish shares	90,133	78,046
Foreign shares	126,835	120,277
Participations in Swedish funds	928	808
Participations in foreign funds	56,136	49,640
TOTAL SHARES AND PARTICIPATIONS, LISTED	274,032	248,771

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

Five largest holdings of Swedish shares, 31/12/2020

	No. shares	Fair value	Capital, %	Votes, %
Lifco	5,731,869	4,522	6.31%	3.94%
Getinge B	22,486,987	4,320	8.26%	5.15%
Atlas Copco	10,657,768	4,075	0.87%	0.41%
Hennes & Mauritz B	22,211,572	3,820	1.34%	0.65%
Sagax	30,710,010	3,445	6.65%	4.37%

Five largest holdings of foreign shares, 31/12/2020

	No. shares	Fair value
Apple	5,109,136	5,568
Microsoft Corp	2,103,817	3,843
Amazon.Com	125,327	3,352
Alphabet	177,414	2,553
Facebook A	708,965	1,590

Five largest holdings of Swedish shares, 31/12/2019

	No. shares	Fair value	Capital, %	Votes, %
Atlas Copco	12,166,915	4,140	0.99%	0.53%
Hennes & Mauritz B	20,165,864	3,841	1.22%	0.59%
Lifco	6,260,580	3,581	6.89%	4.30%
Getinge B	20,362,572	3,543	7.48%	4.67%
Elekta B	25,088,808	3,095	6.54%	4.84%

Five largest holdings of foreign shares, 31/12/2019

	No. shares	Fair value
Apple	1,331,103	3,659
Microsoft Corp	2,092,071	3,088
Alphabet	179,562	2,249
Amazon.Com	121,219	2,097
Facebook A	698,357	1,342

9 Shares and participations, unlisted

	31/12/2020 Fair value	31/12/2019 Fair value
Shares in Swedish associated companies	34,176	32,179
Shares in foreign associated companies	915	1,099
Shares and participations in other Swedish unlisted companies	5,894	4,336
Shares and participations in other foreign unlisted companies	7,032	5,283
TOTAL SHARES AND PARTICIPATIONS, UNLISTED	48,017	42,897

Shares in associated companies, 31/12/2020	Corp. ID no.	Domicile	No. shares	Capital, %	Votes, %	Fair value	Equity	Profit
SHARES IN SWEDISH ASSOCIATED COMPANIES:								
Vasakronan Holding AB	556650-4196	Stockholm	1,000,000	25	25	20,955	70,869	3,714
Rikshem Intressenter AB	556806-2466	Stockholm	250	50	50	12,744	23,165	2,587
Polhem Infra KB	969789-2413	Stockholm	0	33	33	469	1,406	211
Polhem Infra AB	559183-3917	Stockholm	20,000	33	33	0	0	0
Cinder Invest AB	559256-2630	Stockholm	10,000	20	20	8	0	0
TOTAL SHARES IN SWEDISH ASSOCIATED COMPANIES						34 176		
SHARES IN FOREIGN ASSOCIATED COMPANIES:								
ASE Holdings S.à.r.l.		Luxembourg	1,609,214	38	38	162	Not public	Not public
ASE Holdings II S.à.r.l.		Luxembourg	215,023,696	45	45	464	Not public	Not public
ASE Holdings III S.à.r.l.		Luxembourg	5,121,867	35	35	289	Not public	Not public
TOTAL SHARES IN FOREIGN ASSOCIATED COMPANIES						915		

Other holdings, 31/12/2020	Corp. ID no.	Domicile	Capital, %	Votes, %	Cost
FIVE LARGEST HOLDINGS IN OTHER SHARES & PARTICIPATIONS, SWEDISH UNLISTED COMPANIES¹					
LSTH Svenska Handelsfastigheter AB	559009-2325	Stockholm	19	3	1,396
Infranode I (No. 1) AB	556982-5283	Stockholm	20	20	640
Areim Holding Finland 3 AB	559091-2456	Stockholm	50	4	533
Alfvén & Didrikson AB	556954-4066	Stockholm	32	17	437
Areim Fastigheter 4 (Eq) AB	559168-0979	Stockholm	13	16	373
FIVE LARGEST HOLDINGS IN OTHER SHARES & PARTICIPATIONS, FOREIGN UNLISTED COMPANIES¹					
White Peak Real Estate IV L.P.		Jersey	24		887
EQT Infrastructure IV (No. 1) EUR SCSp		Luxembourg	1		637
Infracapital Greenfield Partners I L.P.		UK	6		547
Generation IM Sustainable Solutions Fund III (B), L.P.		Guernsey	15		546
Bridgepoint Credit Opportunities SICAV-FIS, SCA - subfund III		Luxembourg	9		532

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

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

9 Cont. Shares and participations, unlisted

Shares in associated companies, 31/12/2019	Corp. ID no.	Domicile	No. shares	Capital, %	Votes, %	Fair value	Equity	Profit
SHARES IN SWEDISH ASSOCIATED COMPANIES								
Vasakronan Holding AB	556650-4196	Stockholm	1,000,000	25	25	20,590	70,156	13,909
Rikshem Intressenter AB	556806-2466	Stockholm	250	50	50	11,280	20,542	2,205
Polhem Infra KB	969789-2413	Stockholm		33	33	309	926	-11
Polhem Infra AB	559183-3917	Stockholm	20,000	33	33	0	0	0
TOTAL SHARES IN SWEDISH ASSOCIATED COMPANIES						32,179		
SHARES IN FOREIGN ASSOCIATED COMPANIES:								
ASE Holdings S.à.r.l.		Luxembourg	1,609,214	38	38	225	Not public	Not public
ASE Holdings II S.à.r.l.		Luxembourg	215,023,696	45	45	551	Not public	Not public
ASE Holdings III S.à.r.l.		Luxembourg	5,121,867	35	35	323	Not public	Not public
TOTAL SHARES IN FOREIGN ASSOCIATED COMPANIES						1 099		

Other holdings, 31/12/2019	Corp. ID no.	Domicile	Capital, %	Votes, %	Cost
FIVE LARGEST HOLDINGS IN OTHER SHARES & PARTICIPATIONS, SWEDISH UNLISTED COMPANIES¹					
Infranode I (No. 1) AB	556982-5283	Stockholm	20	20	656
Areim Holding Finland 3 AB	559091-2456	Stockholm	50	9	639
Alfvén & Didrikson AB	556954-4066	Stockholm	32	17	395
Areim Fastigheter 3 AB	559035-9161	Stockholm	4	2	245
AB Max Sievert	556995-3598	Stockholm	25	11	211
FIVE LARGEST HOLDINGS IN OTHER SHARES & PARTICIPATIONS, FOREIGN UNLISTED COMPANIES¹					
White Peak Real Estate IV L.P.		Jersey	24		693
Infracapital Greenfield Partners I L.P.		UK	6		457
EQT Infrastructure III (No. 1) SCSp		Luxembourg	1		425
EQT Credit Opportunities III (No. 1) L.P.		Luxembourg	9		291
Generation IM Sustainable Solutions Fund III (B), L.P.		Guernsey	15		290

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

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

10 Bonds and other fixed income assets

	31/12/2020		31/12/2019	
	Fair value		Fair value	
BREAKDOWN BY ISSUER CATEGORY				
Swedish state		0		2,055
Swedish mortgage institutions		25,741		33,053
Other Swedish financial services companies		8,928		9,765
Swedish non-financial companies		769		1,667
Foreign governments		58,185		55,969
Other foreign issuers		16,702		13,456
TOTAL FIXED INCOME ASSETS		110,325		115,965
Breakdown by type of instrument				
Other bonds		104,141		111,329
Subordinated loans		3,807		2,699
Unlisted promissory note loans		789		852
Unlisted shareholder loans		1,242		748
Participations in foreign fixed income		346		337
TOTAL FIXED INCOME ASSETS		110,325		115,965

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

11 Derivative instruments

	31/12/2020		31/12/2019	
	Fair value		Fair value	
	Positive	Negative	Positive	Negative
INTEREST-RELATED INSTRUMENTS:				
Swaps	7	0	16	1
Total interest-related instruments	7	0	16	1
CURRENCY-RELATED INSTRUMENTS:				
Options	1,280	944	993	784
Forward contracts	8,900	464	4,932	320
Swaps	2,441	0	366	7
Total currency-related instruments	12,621	1,408	6,291	1,111
TOTAL DERIVATIVE INSTRUMENTS	12,628	1,408	6,307	1,112

For details about areas of use and risk management for derivative instruments see Note 20 Risks, on pages 57–60.

Maturity analysis

Most the AP4's derivatives have terms of less than one year. Only a few currency options, cross currency basis swaps, credit default swaps and currency forwards have longer terms, and of these 18 (25) contracts have a negative fair value. These are presented in the tables below.

Maturity analysis of derivative positions with negative fair value, with terms longer than 12 months, 2020

Maturity structure Term	> 1 yr < 3 yrs	> 3 yrs < 5 yrs	> 5 yrs < 10 yrs	> 10 yrs
Issued currency options	-117	0	-	-
Currency forward contracts	-6	-	-	-
TOTAL	-123	0	0	0

Maturity analysis of derivative positions with negative fair value, with terms longer than 12 months, 2019

Maturity structure Term	> 1 yr < 3 yrs	> 3 yrs < 5 yrs	> 5 yrs < 10 yrs	> 10 yrs
Issued currency options	-377	-11	-	-
Credit Default Swap	-	-17	-	-
TOTAL	-377	-28	-	-

12 Other assets

	31/12/2020	31/12/2019
Outstanding receivables	1,197	3,164
Other assets	4	3
TOTAL OTHER ASSETS	1,201	3,167

13 Prepaid expenses and accrued income

	31/12/2020	31/12/2019
Accrued interest income	569	762
Accrued dividends and repayments	234	259
Other prepaid expenses and accrued income	12	9
TOTAL PREPAID EXPENSES AND ACCRUED INCOME	815	1,030

14 Other liabilities

	31/12/2020	31/12/2019
Trade accounts payable	7	10
Outstanding liabilities	1,061	2,849
Other liabilities	7	6
TOTAL OTHER LIABILITIES	1,075	2,865

15 Deferred income and accrued expenses

	31/12/2020	31/12/2019
Accrued interest expenses	174	607
Accrued personnel costs	18	15
Accrued external asset management fees	0	0
Other accrued expenses	6	6
TOTAL DEFERRED INCOME AND ACCRUED EXPENSES	198	628

16 Fund capital

	31/12/2020	31/12/2019
Fund capital, opening balance	418,028	349,312
NET PAYMENTS TO THE PENSION SYSTEM:		
Paid-in pension contributions	73,872	72,343
Pension funds disbursed to the Swedish Pensions Agency	-81,564	-78,681
Transfer of pension rights to EG	-2	0
Settlement of pension rights	2	3
Administration fees to the Swedish Pensions Agency	-210	-185
TOTAL NET PAYMENTS TO THE PENSION SYSTEM	-7,902	-6,520
NET RESULT FOR THE YEAR	39,323	75,236
FUND CAPITAL, CLOSING BALANCE	449,449	418,028

17 Pledged assets, contingent liabilities and commitments

	31/12/2020	31/12/2019
OTHER PLEDGED ASSETS AND EQUIVALENT COLLATERAL:		
Securities on loan against collateral received in the form of securities ¹	25,385	25,173
Collateral pledged for exchange-cleared derivative contracts	2,631	1,494
Pledged assets pertaining to OTC derivative contracts ²	14	-
COMMITMENTS:		
Investment commitments to future payments for alternative and strategic investments	22,049	8,616
Subscription commitments, see Note 18	9,500	9 500

¹ Collateral received for loaned securities amounts to SEK 26,528 million (26,353).

² Collateral received for OTC derivative contracts amounted to SEK 10,377 million (5,086).

18 Related parties

The purpose of this note is to disclose how AP4's result and financial position have been affected by transactions and outstanding balances, including commitments, with related parties in accordance with the definitions in IAS 24. With respect to salaries and remuneration paid to the Board of Directors and senior executives, see Note 6. All associated companies are considered to be related parties to AP4, see also Note 9.

	31/12/2020	31/12/2019
Vasakronan Holding AB		
Interest income	9	9
Commitments ¹	4,500	4,500
Rikshem Intressenter AB		
Interest income	15	15
Commitments ¹	5,000	5,000
ASE Holdings S.à.r.l.		
Interest income	-	29
Shareholder loans	225	248
ASE Holdings II S.à.r.l.		
Interest income	31	32
Shareholder loans	362	400
ASE Holdings III S.à.r.l.		
Interest income	15	13
Shareholder contributions during the year	18	70
Shareholder loans	195	196
Polhem Infra AB		
Shareholder contributions during the year	0	4,5
Polhem Infra KB		
Contributions during the year	90	312
Cinder Invest AB		
Shareholder contributions during the year	12	-

¹ At the request of Vasakronan and Rikshem, AP4 has committed to buying commercial paper in the respective companies up a value reported above.

19 Financial instruments, price and valuation hierarchy

	31/12/2020 Level 1	31/12/2020 Level 2	31/12/2020 Level 3	31/12/2020 Total
FINANCIAL ASSETS				
Shares and participations, listed	225,709	44,295	4,028	274,032
Shares and participations, unlisted	-	-	48,017	48,017
Bonds and other fixed income securities	107,088	1,205	2,032	110,325
Derivative instruments	6	12,622	-	12,628
Total financial assets	332,803	58,123	54,076	445,002
FINANCIAL LIABILITIES				
Derivative instruments	-	-1,408	-	-1,408
Total financial liabilities	0	-1,408	-	-1,408
NET FINANCIAL ASSETS AND LIABILITIES	332,803	56,715	54,076	443,594

	31/12/2019 Level 1	31/12/2019 Level 2	31/12/2019 Level 3	31/12/2019 Total
FINANCIAL ASSETS				
Shares and participations, listed	201,340	43,210	4,220	248,771
Shares and participations, unlisted	-	-	42,897	42,897
Bonds and other fixed income securities	113,282	94	2,590	115,965
Derivative instruments	3	6,304	-	6,307
Total financial assets	314,624	49,609	49,707	413,940
FINANCIAL LIABILITIES				
Derivative instruments	0	-1,112	-	-1,112
Total financial liabilities	0	-1,112	-	-1,112
NET FINANCIAL ASSETS AND LIABILITIES	314,624	48,496	49,707	412,827

Changes in Level 3

	Shares and participations, unlisted	Shares and participations, listed	Bonds and other fixed income investments
Opening balance, 1/1/2020	42,897	4,220	2,590
Realised and unrealised gains (+) or losses (-) in the income statement*	2,555	362	-1,156
Purchases	3,065	82	601
Sales	-500	-636	-3
CLOSING BALANCE, 31/12/2020	48,017	4,029	2,032
* Of which, unrealised gains	2,433	352	-1,156

	Shares and participations, unlisted	Shares and participations, listed	Bonds and other fixed income investments
Opening balance, 1/1/2019	36,077	3,450	2,443
Realised and unrealised gains (+) or losses (-) in the income statement*	5,156	589	-151
Purchases	2,674	543	580
Sales	-1,010	-362	-282
CLOSING BALANCE, 31/12/2019	42,897	4,220	2,590
* Of which, unrealised gains	4,426	585	-186

19 Cont. Financial instruments, price and valuation hierarchy

Level 1 Instruments with publicly quoted prices

Financial instruments traded in an active market. A market is considered to be active if it has quoted prices that are regularly updated more frequently than once a week and if the prices used are unadjusted for settled trades in the market. Approximately 75% of AP4's investments are classified in this level.

Level 2 Valuation methods based on observable market data

Financial instruments traded in a market that is not considered to be active, but where there are quoted prices that are unadjusted for trades, or observable input data that is updated regularly for indirect valuation using generally accepted models. At AP4 this category mainly includes market-quoted equity funds that are not considered to be active but where there is observable input data that is regularly updated for indirect valuation as well as OTC derivatives such as forward exchange contracts and interest rate swaps, but also fixed income instruments and funds containing interest-related instruments with low liquidity. OTC derivatives are valued using discount curves that are indirectly based on regularly updated observable input data that is interpolated or extrapolated to calculate non-observable interest rates. Input data for these interest rates that is used to discount the future cash flows of the instrument for valuation is updated regularly and is observable, though this does not apply for the interest rates. These instruments are therefore classified as Level 2.

Level 3 Valuation methods based on non-observable market data

Financial instruments that are valued using a significant amount of non-observable data or that cannot otherwise be classified as Level 1 or Level 2. This includes unlisted shares and shareholder loans in directly held real estate companies and unlisted shares in private equity firms. For private equity firms, the IPEV's principles are used as the main framework and include several valuation methods such as valuation based on actual transactions, multiples valuations, calculations of net asset value and discounted cash flows. For holdings in directly owned property companies, the principles of IPD Svenskt Fastighetsindex are used as a framework, with two basic methods: the local market price method and the indirect return method (NPV approach). With the local market price method, the property holdings are compared with similar properties sold on the open market, while the indirect return method involves the use of discounted forecast future cash flows.

Sensitivity analysis

According to IFRS a sensitivity analysis shall be presented using an alternative valuation for Level 3 assets. In terms of valuation methodology, an alternative valuation of these assets is associated with major difficulties. Generally speaking, for unlisted properties the yield requirement is of crucial importance, but assumptions about factors such as vacancies, operating costs, market and profit growth are also of great importance. For

private equity firms, profit growth and the stock exchange's P/E multiple valuations are important.

Level 3 valuations usually include a delay, which in a positive-trending market entail a conservative valuation and vice versa. A sensitivity analysis of Vasakronan, AP4's largest real estate holding, with a fair value of shares and participations of SEK 21.0 billion, i.e., nearly 50% of unlisted shares in Level 3, has been performed by the property company. According to this analysis a change in required yield by +/- 0.25 percentage points would change the value of the shareholding in Vasakronan by approximately SEK -2.3/+2.6 billion.

For valuation of AP4's investments in private equity firms reported in unlisted shares, corresponding to SEK 8.4 billion, significant assumptions are made about valuation multiples and future cash flows. A changed assumption for the EV/EBITDA multiple by +/- 5% would result in a change in the valuation of these investments by SEK +/- 1,054 million. Valuation of AP4's high-yield fixed income assets reported in listed shares, corresponding to SEK 5.2 billion, is based substantially on discount rates for interest income and repayment of loans. A change in the discount rate of +/- 1 percentage point for all maturities would result in a change in value by SEK +/- 103 million.

Business risks

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

Operational risk

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

The overall goal in managing operational risks is to achieve and maintain a good control culture and to reduce significant operational risks within AP4.

Established, Fund-wide process and methodology

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

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

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

Responsibility and organisation

In the day-to-day activities all managers and employees shall maintain an awareness of risks in the business and their key controls, and act in such a way to ensure that the operations, assets or trust in AP4 among parties in the external operating environment are not jeopardised. Further, all units are responsible for ensuring that the daily operations meet the requirements for good internal control and allocate sufficient resources for this.

The operations, with the process owner as the responsible party, shall identify, assess and manage the risks in their respective areas of operation. Risk & Business Support is responsible for supporting and coordinating the management of operational risks throughout AP4. This responsibility includes developing and providing expert and methodology support and following up, evaluating and developing the risk management process. In addition, Risk & Business Support is responsible for conducting a follow-up at least once of year to ensure compliance with the joint risk management methodology for operational risks for all

identified processes in AP4. The same applies for all identified material change processes, such as for the implementation of new products, system changes and organisational changes.

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

Financial risks

Financial risks, consisting mainly of market, credit and liquidity risks, are monitored and controlled by the independent Risk & Business Support unit, which reports directly to the CEO and the Board of Directors. The goal of asset management is to only take positions that are expected to generate favourable returns within established risk mandates. Therefore, the main risks that AP4 exposes itself to should consist of transparent financial risks, and in such case predominantly market risks where there are good opportunities for forecast risk premiums.

Market risks

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

Share price risk

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

Interest rate risk

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

Currency risk

Currency risk refers to expected variations in exchange rates for assets denominated in foreign currencies. Currency risk arises in connection with investments that are quoted in foreign currencies. The Swedish National Pension Funds Act limits the total currency exposure in AP4 to a maximum of 40 percentage points. AP4's investment policy determines the ultimate currency exposure in the Dynamic Normal Portfolio (DNP).

Risk in investments

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

20 Cont. Risks

Asset classes, 31/12/2020	VaR, ex-ante, holding period 10 days	Contribution volatility % 12-month portfolio	VaR, ex-ante, holding period 1 day ²
Global equities ¹	9,454	7.7	3,701
Swedish equities	4,917	4.0	1,499
Global fixed income instruments ¹	28	0.0	-4
Swedish fixed income instruments	7	0.0	7
Real assets ¹	4,138	3.4	254
Currency and other	-324	-0.3	-201
TOTAL INVESTMENTS	18,221	14.9	5,256

Asset classes, 31/12/2019	VaR, ex-ante, holding period 10 days	Contribution volatility % 12-month portfolio	VaR, ex-ante, holding period 1 day ²
Global equities ¹	4,604	4.0	1,216
Swedish equities	2,309	2.0	608
Global fixed income instruments ¹	-40	0.0	-39
Swedish fixed income instruments	-11	0.0	-8
Real assets ¹	1,311	1.2	108
Currency and other	79	0.1	8
TOTAL INVESTMENTS	8,252	7.3	1,893

¹ Some of AP4's assets lack market quotations of asset prices with good periodicity or are also missing underlying holdings of an index. This makes it difficult to forecast the risks for these assets in a satisfactory manner in AP4's risk system, Barra. AP4 has therefore chosen to use alternative listed securities as approximations for these holdings. Approximations have been used for a total of 13.4% of assets. Approximations have been made as follows: For unlisted real assets, corresponding to 9.7%, shares in listed Swedish property companies have been used. For unlisted equities and high-yield fixed income instruments, corresponding to 2.3%, a European equity index and European high-yield index have been used, respectively. For parts of our externally managed equities in emerging markets, corresponding to 1.4%, an equity index for emerging markets has been used.² To enable comparisons with AP1, AP2 and AP3, AP4 has also estimated VaR based on a one-day holding period, a 95% confidence level, and a data length of one year in which the observations are given equal weight. In this context a simulation method with historical return distribution has been used for the calculation.

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

Currency exposure

31/12/2020	USD	EUR	JPY	GBP	KRW	TWD	Other	Total
Shares and participations	104,378	21,390	11,119	7,804	4,308	4,081	36,312	189,390
Bonds and other fixed income assets	38,782	21,388	4,713	5,111	0	0	6,627	76,621
Derivative instruments, excl. currency derivatives	6	7	0	0	0	0	0	13
Other receivables and liabilities, net	1,220	1,126	586	329	1	0	851	4,113
Currency derivatives	-98,961	-37,828	-10,376	-9,350	-455	-618	-18,071	-175,660
CURRENCY EXPOSURE, NET	45,424	6,083	6,041	3,893	3,854	3,463	25,719	94,477

31/12/2019	USD	EUR	JPY	GBP	KRW	TWD	Other	Total
Shares and participations	95,537	11,555	9,457	3,280	7,066	3,219	45,158	175,271
Bonds and other fixed income assets	34,939	0	6,820	0	0	0	29,695	71,454
Derivative instruments, excl. currency derivatives	-12,675	0	0	0	0	0	-510	-13,185
Other receivables and liabilities, net	1,124	-1,770	366	1	83	0	2,113	1,916
Currency derivatives	-78,456	-3,977	-12,631	0	-4,099	-330	-53,159	-152,653
CURRENCY EXPOSURE, NET	40,469	5,808	4,012	3,281	3,050	2,888	23,295	82,804

AP4 hedges its entire holding of foreign fixed income assets as well as parts of its foreign shareholdings using currency derivatives. AP4's currency exposure at year-end was 21.0% (19.8%). AP4's currency exposure is shown in the table above.

Credit risk

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

issuers or issuer is restricted by limits which include both issuer and counterparty risk.

The CEO approves all counterparties with which AP4 can do business (in both standard and non-standard instruments). Further, when trading in OTC derivatives, ISDA and CSA agreements must exist for all large counterparties.

Rating classes ¹ , 31/12/2020	Bonds, ² exposure	Non-standardised derivatives		Residual risk
		Fair value ²	Collateral/security	
AAA	68,112	-	-	-
AA	5,499	4,737	-6,765	-2,028
A	8,494	3,945	-4,573	-628
BBB	26,026	0	-87	-87
BB	26	-	-	-
No rating ³	844	-	-	-
TOTAL CREDIT RISK EXPOSURE	109,001	8,683	-11,425	-2,742

Rating classes ¹ , 31/12/2019	Bonds, ² exposure	Non-standardised derivatives		Residual risk
		Fair value ²	Collateral/security	
AAA	79,717	-	-	-
AA	7,059	1,565	-1,590	-25
A	2,524	2,256	-3,862	-1,606
BBB	24,046	0	-49	-49
BB	29	-	-	-
No rating ³	1,934	-	-	-
TOTAL CREDIT RISK EXPOSURE	115,309	3,821	-5,501	-1,680

¹ The credit ratings presented here refer to an internal standard. For 2020 this standard is based on the rating assigned by the chosen rating agency (Moody's Analytics UK Ltd).

² Fair value, including accrued interest.

³ Pertains to subordinated loans, bonds and shareholder loans in Alternative investments and Real estate.

Management of derivatives

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

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

The use of derivatives is limited both in terms of the nominal underlying values and market risk. All derivative positions and associated risks are subject to daily position and risk monitoring.

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

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

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

Liquidity risk

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

Liquidity risk in a financial instrument consists of the risk that the instrument cannot be sold or can only be sold at a significantly lower price than the market-quoted price. A large share of AP4's securities are immediately available for trading or lending. Illiquid financial instruments consist primarily of assets in unlisted companies and real estate. OTC derivatives and credit instruments may also become illiquid and/or show significant differences between the bid and ask prices from time to time.

Liquidity risk may also be high if large net payments are needed from the liabilities side, since AP4 has a payment obligation to the Swedish Pensions Agency. This makes it necessary to keep a large share of liquid assets. At present AP4 makes monthly payments to the Swedish Pensions Agency that are relatively small in relation to existing capital, however, possible losses on currency forward contracts and equity index futures may be significant, and

daily forecasts of liquidity in SEK and other currencies are to be prepared.

AP4's liquidity risk in financial instruments is limited by the investment universe as well as by limits for active risk combined with the choice of benchmark index for fixed income securities and listed equities. Further, the Swedish National Pension Funds Act limits liquidity risk, as it stipulates that a minimum of 20% of AP4's total market value must be invested in debt instruments with low credit and liquidity risk.

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

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

Maturity structure, 31/12/2020						
Term	<1 yr	1<3 yrs	3<5 yrs	5<10 yrs	>10 yrs	Total
Nominal government	84	28,444	16,075	11,144	2,629	58,376
Nominal corporate	1,780	21,945	19,912	6,972	16	50,625
TOTAL	1,864	50,389	35,986	18,116	2,645	109,001

Maturity structure, 31/12/2020						
Term	<1 yr	1<3 yrs	3<5 yrs	5<10 yrs	>10 yrs	Total
Nominal government	0	25,313	14,393	12,627	6,011	58,343
Nominal corporate	3,794	18,989	25,838	7,580	765	56,966
TOTAL	3,794	44,302	40,230	20,207	6,776	115,309

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

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

31/12/2020	Amounts not netted on the balance sheet							Total on balance sheet
	Gross amount	Netted amount on balance sheet	Net amount on balance sheet	Offsetting of financial instruments under agreements	Collateral received	Net amount after offsetting	Other ¹	
ASSETS								
Derivative instruments	12,628	0	12,628	1,408	10,042	1,178	-	12,628
Unliquidated receivables	5,553	5,370	183	-	-	183	1,014	1,197
TOTAL	18,181	5,370	12,811	1,408	10,042	1,361	1,014	13,825
LIABILITIES								
Derivative instruments	1,408	0	1,408	1,408	39	-39	-	1,408
Unliquidated receivables	5,410	5,370	40	-	-	40	1,021	1,061
TOTAL	6,818	5,370	1,448	1,408	39	1	1,021	2,469

31/12/2019	Amounts not netted on the balance sheet							Total on balance sheet
	Gross amount	Netted amount on balance sheet	Net amount on balance sheet	Offsetting of financial instruments under agreements	Collateral received	Net amount after offsetting	Other ¹	
ASSETS								
Derivative instruments	6,307	0	6,307	1,112	4,819	376	-	6,307
Unliquidated receivables	11,069	10,944	125	-	-	125	3,042	3,167
TOTAL	17,376	10,944	6,432	1,112	4,819	501	3,042	9,474
LIABILITIES								
Derivative instruments	1,112	0	1,112	1,112	0	0	-	1,112
Unliquidated receivables	10,997	10,944	53	-	-	53	2,796	2,849
TOTAL	12,109	10,944	1,165	1,112	0	53	2,796	3,961

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

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

Board of Directors' signatures

Stockholm, 18 February 2021

Sarah McPhee
Chair of the Board

Lars Åberg
Vice Chair

Helén Eliasson

Monika Elling

Henrik Rättzén

Maj-Charlotte Wallin

Ingrid Werner

Göran Zettergren

Aleksandar Zuza

Niklas Ekvall
CEO

Our audit report was submitted on 18 February 2021

Helena Kaiser de Carolis
Authorised Public Accountant
Appointed by the Swedish government

Peter Nilsson
Authorised Public Accountant
Appointed by the Swedish government

Auditor's Report

Report on the audit of the annual accounts

Below text is a translation of the official auditor's report, which is presented in Swedish.

Opinion

We have audited the annual accounts of AP4 for 2020. The Fund's annual accounts are included in the printed version of this document on pages 41-62.

In our opinion, the annual accounts have been prepared in accordance with the Swedish National Pension Funds Act (2000:192) and present fairly, in all material respects, the financial position of the Fourth AP Fund as at 31 December 2020 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.

Other Information than the annual accounts

This document includes other information than the financial statements. The other information comprises the pages 1-40 and 65-76. The Board of Directors and the Managing Director are responsible for the other information.

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

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

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

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 otherwise fulfilled our ethical responsibilities in accordance with 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 mistake.

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 mistake, 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 mistake and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the annual report. As part of an audit in accordance with ISAs, we exercise professional judgement and maintain professional scepticism throughout the audit. Furthermore, we execute the following activities:

- We identify and assess the risks of material misstatement in the annual accounts, whether due to fraud or mistake, 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 mistake, as fraud can include collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.
- We obtain understanding of the internal control of the fund relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal controls.
- We evaluate the appropriateness of the accounting principles applied and the reasonability of the accounting estimates and

related disclosures made by the Board of Directors and Managing Director.

- We reach a conclusion on the appropriateness of the Board of Directors' and Managing Director's application of the going concern basis of accounting in the preparation of the annual accounts. We are also to reach a conclusion, based on the audit evidence obtained, whether any material uncertainty exists related to such events or circumstances which can result in significant doubt as regards the Fund's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our Auditor's Report to the related disclosures in the annual accounts, or if such disclosures are inadequate, we are required to modify our opinion on the annual accounts. Our conclusions are based on the audit evidence obtained up to the date of our Auditor's Report. However, future events or circumstances may cause the Fund to cease to continue as a going concern.
- We evaluate the overall presentation, structure and content of the annual accounts, including the disclosures, and whether the financial reports represent the underlying transactions and events in a manner providing true and fair presentation.

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

Report on other legal and regulatory requirements

Opinion

In addition to our audit of the annual accounts, we have also audited the inventory of the assets managed by AP4. We have also audited to determine if there are any criticisms, in general, as regards the Board of Director's and Managing Director's management of AP4 for 2020.

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 are independent in relation to AP4 according to generally accepted auditing standards in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these standards. 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 Swedish National Pension Funds Act.

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

Auditor's responsibilities

Our responsibility regarding the audit of the administration and, thereby, our opinion on discharge from liability, is to evaluate audit evidence in order to, with a reasonable degree of assurance on the basis of reasonable assurance, if there is any criticism of the Board of Directors' and Managing Directors' administration of the AP4 for financial year 2020.

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

As a part of an audit according to generally accepted auditing practice in Sweden, we exercise professional judgment and maintain a professional scepticism through the entire audit. The audit of the administration is based primarily on the audit of the accounts. Any additional audit procedures selected to be executed are based on our professional judgment with the starting point being the risks in the operations and the determined level of materiality. This implies that we focus the audit on such 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, decisionmaking documentation, measures taken and other circumstances relevant to our opinion on the administration.

Stockholm 18 February 2021

Helena Kaiser de Carolis

Authorised Public Accountant

Appointed by the Swedish Government

Peter Nilsson

Authorised Public Accountant

Appointed by the Swedish Government

Fund Governance Report

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

Governance of AP4 – an agency governed by law

AP4 is a government agency whose operations are regulated by the National Pension Funds (the AP Funds) Act (Lagen (2000:192) om allmänna pensionfonder (AP-fonder)). The purport of this law is that AP4’s capital may only be used by the state to fund income-related retirement pensions, unless Swedish Parliament decides otherwise. In accordance with National Pension Funds Act, the AP Funds each have their own, independent boards of directors, which are responsible for the organisation and administration of their capital. According to this Act, AP4’s board and operations may not be steered by government directives nor by business policies or economic policy interests. On 1 November 2020, changed rules in the National Pension Funds Act took effect regarding the AP Funds’ investment rules. Following is a description of the rules that apply as from 1 November 2020.

AP4’s mission

AP4’s mission is to manage pensions funds in an exemplary way through responsible investments and responsible ownership to provide the greatest possible benefit for the pension system. The goal of exemplary asset management shall be achieved without compromising on the overarching goal of generating a long-term high return.

Investment rules

The investment rules for AP1-AP4 are stipulated in the National Pension Funds Act. Investments may be made in all market-listed and tradable instruments on the capital market, except for those related to commodities.

- A minimum of 20% of assets must be invested in fixed income securities with low credit and liquidity risk.
- A maximum of 40% of assets may be exposed to currency risk.
- A maximum of 10% of assets may be exposed to an individual issuer or group of issuers with internal ties.
- The market value of AP4’s shares in listed Swedish companies may amount to a maximum of 2% of the total market capitalisation.
- A maximum of 10% of votes may be owned in an individual listed company (except for own property companies).

- A temporary rule that a maximum of 15% of the votes may be owned in an individual listed Swedish company where the share of ownership above 10% has been acquired through a new issue during the period 1 November 2020 through 30 June 2021.
- A maximum of 40% of assets may consist of illiquid assets.
- Unlisted shares may only be owned indirectly via funds, private equity companies, co-investments or side investments.
- Shares and participations in unlisted property companies may be directly owned.

Review and evaluation

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

Audit of operations

AP4’s auditors are appointed by the Swedish government. The current assignment is held by Helena Kaiser de Carolis and Peter Nilsson, from PwC. This assignment applies until AP4’s income statement and balance sheet for 2020 have been adopted and also includes a specific assignment for PwC AB to coordinate the audits of the AP Funds.

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

External and internal rules and regulations

AP1-AP4 have jointly prepared accounting and valuation policies which aim to ensure that the AP Funds apply uniform accounting policies and that their annual reports are thereby comparable. The document is updated on a regular basis and is discussed yearly with the external auditors. Since 2012 the AP Funds have a joint policy for remuneration, employee benefits, entertainment and business travel that has been adopted by the respective AP Funds’ boards. This joint, overarching policy is complemented by AP4’s more detailed internal employee and ethics-related policies and guidelines.

External and internal rules, regulations and documents that affect governance and operations:

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

The Board's responsibilities and duties

The Board of Directors is ultimately responsible for AP4's organisation and the administration of AP4's capital. The Board has delegated responsibility for the day-to-day administration to the CEO. The Board is also responsible for hiring and evaluating the CEO, taking positions on overarching strategic issues, ensuring that its decisions are executed, and checking and following up that the operations and its risks are managed in a suitable manner.

Important duties include adopting the following, among other things:

- Rules of Procedure for its work
- The CEO's instructions
- Policies, rules and guidelines for the operations, personnel (including remuneration principles and terms of employment), financial and operational risks, and ethical guidelines for employees
- The focus of asset management through set return targets, the Dynamic Normal Portfolio (DNP), and risk mandate for the day-to-day asset management
- A yearly business plan for AP4

Evaluation of the Board's work

An evaluation of the Board's work is conducted for each year. All of the board members participate in the evaluation. The result of the evaluation is used as a basis for a discussion within the Board about how its work can be further developed.

The Board's composition

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

The board members on 31 December 2020 were Sarah McPhee (Chair), Lars Åberg (Vice Chair), Maj-Charlotte Wallin, Henrik Rättzén, Ingrid Werner and Göran Zettergren. Sven Hegelund, Erica Sjölander and Katrin Stjernfeldt were dismissed in May and replaced by Helén Eliasson, Monika Elling and Aleksandar Zuza. Biographical information on AP4's directors is provided on page 70. The Board appointments apply until AP4's balance sheet and income statement for 2020 have been adopted.

The Board's three committees

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

Remuneration Committee

The Remuneration Committee shall serve as a drafting and advisory body for the Board on remuneration matters concerning the CEO and senior executives. The committee also conducts drafting work on other matters concerning AP4's remuneration principles and other terms of employment for all employees. The Remuneration Committee as per 31 December 2020 consisted of: Göran Zettergren (committee chair) and Maj-Charlotte Wallin. Sven Hegelund was dismissed in May 2020.

Risk Committee

The Risk Committee shall serve as a drafting, oversight and advisory body for the Board with respect to AP4's governance, monitoring, and reporting of financial risks in the operations. The Risk Committee as per 31 December 2020 consisted of Lars Åberg (committee chair), Henrik Rättzén and Ingrid Werner. Sven Hegelund was dismissed in May 2020.

Audit Committee

The Audit Committee shall serve as a drafting, oversight and advisory body for the Board with respect to AP4's external financial reporting, accounting, the effectiveness of AP4's internal control, external audit, monitoring of AP4's management of operational risks, and compliance. AP4's external auditors attend the meeting at which the final audit is addressed. The Audit Committee as per 31 December 2020 consisted of Maj-Charlotte Wallin (committee chair), Göran Zetterberg and Henrik Rättzén. Erica Sjölander was dismissed in May 2020.

Directors' fees

Directors' fees are set by the government. The full-year fee for 2020 is SEK 200,000 for the Chair of the Board, SEK 150,000 for the Vice Chair, and SEK 100,000 for each of the other directors. The government has also set a yearly budget of SEK 100,000 for committee assignments.

Seven meetings in 2020 documented by minutes

During the 2020 financial year the Board held seven meetings at which minutes were recorded. As shown in the table on page 67, directors' attendance remained high, averaging 95%. Attendance at board meetings included, in addition to the board members, the CEO, AP4 executives in a presenting role, and AP4's General Counsel, who also serves as company secretary.

Focus areas in 2020

In addition to its regular work areas, the focus of the Board's work in 2020 was mainly on decisions related to extensive development work during the year, including:

- Review and decision on ALM – reduced long-term return target
- Review and decisions on the Dynamic Normal Portfolio (DNP) – increased allocation to real assets
- Development of sustainability work – business environment analysis, developed targets and asset management strategy for fossil fuel-related companies

Board meetings in 2020

	Remuneration Committee	Risk Committee	Audit Committee	Attendance/ total no. meetings	Fee (SEK 000s)
Sarah McPhee, Chair				7/7	200
Lars Åberg, Vice Chair		X		7/7	163
Henrik Rättzén		X*	X*	7/7	109
Erica Sjölander (left the Board in May)			X	2/2	46
Sven Hegelund (left the Board in May)	X	X		2/2	51
Maj-Charlotte Wallin	X		X	6/7	126
Göran Zettergren	X		X	6/7	126
Ingrid Werner		X		7/7	113
Katrin Stjernfeldt Jammeh (left the Board in May)				1/2	42
Helén Eliasson (joined the Board in May)				5/5	58
Monika Elling (joined the Board in May)				5/5	58
Aleksandar Zuza (joined the Board in May)				5/5	58

* As from June 2020.

Risk management at AP4

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

Risk management in three steps

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

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

Step 1. Risk governance – framework for risk tolerance

The Board of Directors has overarching responsibility for AP4's operations and adopts an investment policy and risk management plan for AP4's operations every year. Together with the Swedish National Pension Funds (the AP Funds) Act (*Lagen (2000:192) om allmänna pensionfonder (AP-fonder)*), these governing documents provide a framework for AP4's risk tolerance. To manage the various aspects of risk governance, the Board has established a Risk Committee and an Audit Committee with three members each. The Risk Committee serves in an advisory, oversight and drafting role for the Board with respect to AP4's governance, monitoring and reporting of financial risks in the operations. The Audit Committee is tasked with overseeing the external financial reporting and the effectiveness of AP4's internal controls. Its duties include overseeing the work on monitoring management of operational risks and monitoring compliance. AP4's risk and investment strategy has been formulated in accordance with the overall objective to generate the highest possible return over time and

thereby contribute to the pension system's financial strength. The investment policy describes, among other things, the focus of asset management based on return targets and the Dynamic Normal Portfolio (DNP), which takes its starting point from AP4's ALM (Asset Liability Management) process. In addition, the investment policy describes AP4's risk mandate for the continuing asset management. The risk management plan describes the division of responsibility and authority for the investment operations, the principal risks in the operations and how these risks are to be controlled and followed up. The main risks are financial and operational risks. A more detailed description of risks is provided in Note 20.

Step 2. Continuous risk management

AP4's daily risk management and control activities are decentralised to all operating aspects of the organisation and are conducted in accordance with the three lines of defence principle. This principle distinguishes between the functions that own the risks (the first line of defence), functions for monitoring, control and compliance (the second line of defence), and functions for independent review (the third line of defence).

AP4's application of the three lines of defence is adapted to what is deemed to be suitable for AP4 and does not fully adhere to regulatory requirements.

Three lines of defence

The **first line of defence** for risk management and control lies in the direct business operations, which includes every administrative unit in the investment operations as well as business support functions, such as Finance, Back Office and Legal.

The **second line of defence** consists of the Risk Control function in Risk & Business Support, and Compliance. Compliance and Risk Control are units that are independent from the investment operations and report directly to the CEO and Board of Directors.

The **third line of defence** rests with internal audit. Each year the Board decides on the scope and the areas for which internal audit is to be conducted. Such assignment is carried out by an external accounting firm. In 2020 an external accounting firm was hired through a tendering process for such an internal audit assignment.

Financial and operational risks

In the continuing risk management, risks are broken down into financial and operational risks. Financial risks consist mainly of market, credit and liquidity risks. The CEO delegates the risk mandate received from the Board for financial risks to the various asset management units. The respective asset managers are responsible for risk management within their respective mandates. Risk management within a mandate is conducted through calculated risk-taking, which can have both positive and negative outcomes. AP4's financial risks have their starting point in the Board's decision on the overall asset allocation in the Dynamic Normal Portfolio (DNP) as well as in AP4's risk mandate for the continuing asset management. Through set risk mandates for the asset management, the scope for risk-taking in the continuing asset management is limited. As documentation for AP4's continuing work on optimising risk-taking, risk forecasts are used for the respective asset management areas, instruments, risk factors, and so on.

AP4 plans strategic risk-taking with the help of stress tests and various scenario analyses. Operational risks at AP4 are to be managed through an established joint process and methodology. In the day-to-day activities all managers and employees shall maintain an awareness of risks in the business and their key controls, and act in such a way to ensure that the operations, assets or trust in AP4 among parties in the external operating environment are upheld.

Step 3. Monitoring and control

The Risk & Business Support unit is responsible for monitoring AP4's financial and operational risks. This involves checks to ensure compliance in the operations with statutory investment rules, targets and guidelines, the requirements of the risk management plan and the CEO's decisions. The Risk & Business Support unit's work includes closely measuring and analysing risk and returns as well as reporting on these daily, both in absolute figures and relative to benchmark indexes, and reporting any breaches of applicable rules or regulations.

Risk & Business Support is organised into four different functions: Risk & Systems, Back Office, Risk Control and IT. Of these, the Risk & Systems and Risk Control functions are part of AP4's risk management. The Risk & Systems function is responsible for the valuation principles for all instruments as well as daily analysis, control and reporting of returns, risks (forecast and outcome), and risk-adjusted returns.

The Risk Control function is responsible for monitoring limits based on prevailing rules and control of financial risks. The Risk Control function is also responsible for monitoring operational risks in the investment operations and for ensuring compliance with rules governing operational risks. Operational risks in AP4 are to be managed through an established joint process and methodology. This process includes process mapping, identification and valuation of risks, and shall be conducted for all identified processes on a regular basis. Key controls shall be in place for all material risks, which as far as possible reduces the likelihood of risks materialising or mitigates the consequences

when undesirable events occur.

In the valuation of risks, existing key controls shall be quality-assured to ensure they have the desired functionality and are effective. As part of the operational risk management process it is especially important to evaluate change processes and their effects on the operations. Operational risks are evaluated specifically in connection with the implementation of new products, system changes and organisational changes. To minimise operational risks, a clear division of responsibilities and authorities shall be documented in written instructions. Applicable processes and routines shall ensure good internal control and be documented in relevant instructions. The so-called four-eyes principle is applied consistently. The Compliance function reviews the operations with respect to compliance with laws, regulations and other guidelines, policies, instructions and internal rules, including ethical guidelines. Its responsibility includes providing support to the operations on compliance issues and analysing compliance risks in the operations.

Remuneration at AP4

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

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

AP4's board of directors

AP4's board is responsible for addressing remuneration issues in a purposeful, responsible and transparent way. Each year the Board adopts the principles governing remuneration and other terms of employment for AP4's employees. In addition, the Board conducts an annual follow-up of how these principles have been applied at AP4 during the preceding year, and verifies and certifies that the government's guidelines on terms of employment for senior executives of the AP Funds have been adhered to. As part of this work, with the support of external consultants the Board regularly conducts comparisons of AP4's remuneration levels for both members of the Executive Management and other employees using salary statistics from relevant, comparable employers in the market.

Remuneration Committee

The Remuneration Committee is a committee appointed by the Board and consisted of three board members during the period January-May. In May 2020 one of the members was dismissed. For the period June-December the committee had two members. The committee serves in an advisory, oversight and drafting role for the Board for remuneration matters concerning the CEO and senior executives of AP4. The Remuneration Committee conducts drafting work for important remuneration decisions in addition to handling other related duties delegated to it by the Board. The committee also conducts drafting work for other matters concerning AP4's remuneration principles and other terms of

employment for all employees, and is responsible for monitoring application of these principles. Finally, the committee conducts drafting work behind the assessment of AP4's compliance with the government's guidelines for terms of employment for senior executives of the AP Funds.

The AP Funds' joint policy

A joint policy for remuneration principles, employee benefits, entertainment and business travel for the First, Second, Third, Fourth, Sixth and Seventh AP Funds was formulated in 2012 and was adopted by AP4's board. This joint, overarching policy is complemented by AP4's more detailed employee-related policies and guidelines, including AP4's remuneration policy. The policies and guidelines referred to above are subject to annual review.

AP4's remuneration policy

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

Fixed salary

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

Variable salary

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

Pension

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

Salary exchange/enhanced occupational pension

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

Other benefits

The combined value of other benefits is of limited value in relation to employees' total remuneration. Examples of other benefits include supplementary health insurance, group insurance and a fitness subsidy. AP4 encourages its employees to take advantage of their parental leave benefits and therefore compensates part of the difference between salary and the parental leave benefit. AP4 currently has ten parking spaces that employees may use, for which they were taxed for the benefit through the month of March. For the period April–December the parking spaces could be used by employees without any benefits taxation owing to temporary tax exemption for access to free parking at the workplace owing to the Covid-19 response.

Notice period/severance pay

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

The Board's follow-up of salaries in 2020

During the year, the Board commissioned a salary survey for all employees based on the guidelines of the Discrimination Act as well as on an external market comparison. The salary survey that was conducted from a gender equality perspective showed in summary that there are no significant differences in salary with respect to equal work, work of equal value, or in female-dominant work categories.

The external market comparison that was conducted covered all of AP4's employees including AP4's senior executives. The market comparison was conducted of salaries for equivalent positions in the financial sector in Sweden working with long-term asset management. One of the aims of the market comparison is to ensure that AP4's salaries are in line with AP4's remuneration policy and the government's guidelines for terms of employment for senior executives of the AP Funds, and thus to ensure that AP4's remuneration levels are reasonable and justifiable without being market-leading, at the same time that they are in line with the market and competitive.

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

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

Board of Directors

Sarah McPhee

Chair of the Board since 2016

Born 1954

B.A., M.A., M. Sc. Business and Economics

Other assignments

Chair: The Centre for Business and Policy Studies (SNS), Houdini AB

Director: Klarna AB, Axel Johnson Inc., Bure Equity AB, Royal Swedish Academy of Engineering Sciences



Lars Åberg

Vice Chair since 2017

Born 1953

B. Sc. Econ.

Other assignments

Director: Trygg-Stiftelsen, Gamla Livförsäkringsaktiebolaget SEB TryggLiv



Helén Eliasson

Director since 2020

Born 1971

B.A. Social Care

Other assignments

Member of Regional Executive Board, Vice Chair, Region Västra Götaland County Council

Director: SKR board of directors, member of Västra Götaland Regional Assembly



Monika Elling

Director since 2020

Born 1962

B. Sc. Econ.

Other assignments

Chair: Talent Eye AB

Director: Zound Industries International AB, Ljung & Sjöberg AB, Earl Holding AB, Zenith Group AB



Henrik Rättzén

Director since 2019

Born 1965

B. Sc. Econ.

Other assignments

Vice Chairman and CFO, SJ AB

Chair: Hedvig Försäkring AB

Director: Hedvig AB



Maj-Charlotte Wallin

Director since 2014

Born 1953

B. Sc. Econ.

Other assignments

Director: Specialfastigheter AB



Ingrid Werner

Director since 2017

Born 1961

Ph.D. Econ., Honorary Ph.D., Stockholm School of Economics

Other assignments

Martin and Andrew Murrer Professor of Finance

Chair: FINRA Economic Advisory Committee, Academic Advisory Board for Swedish House of Finance (SHoF)

Director: Dimensional Mutual Funds and ETFs, American Finance Association, Mistra Financial Systems Board, Scientific Board for Danish Finance Institute and Research Advisory Council for Leibniz Institute for Financial Research SAFE



Göran Zettergren

Director since 2015

Born 1958

Lic. Econ.

Other assignments

Senior Economist, Confederation of Professional Employees (TCO)



Aleksandar Zuza

Director since 2020

Born 1975

M. Sc. Business, M. Sc. Econ.

Other assignments

Investigator: IF Metall

Director: Stockholm Business Region

Executive Management

Niklas Ekvall

CEO

Born 1963

Employed since 2016

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

Previous positions include Nordea, Carnegie, AP3, Handelsbanken and the Stockholm School of Economics

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



Jenny Askfelt Ruud

Head of Alternative Investments

Born 1973

Employed since 2018

M. Sc. Econ.

Previous positions include Enwise, Ratos, McKinsey & Company, Arts Alliance and Morgan Stanley.



Marcus Blomberg

Head of Strategic Allocation & Quantitative Analysis

Born 1974

Employed since 2017

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

Previous positions include AMF, LF and Alfred Berg.



Per Colleen

Head of Fundamental Equities

Born 1969

Employed since 2013

B. Sc. Econ.

Previous positions include SEB, DnB, MGA and AP3.



Theresa Einarsson

General Counsel

Born 1977

Employed since 2019

LL.B.

Previous positions include Apoteksgruppen i Sverige AB, Advokatfirman Vinge, Davis Polk & Wardwell LLP and Hammarškiöld & Co.



Tobias Fransson

Head of Sustainability, Finance & Communication

Born 1968

Employed since 2003

M. Sc. Econ.

Previous positions include ABB, SEB and Capto Financial Consulting.



Nicklas Wikström

Head of Risk & Business Support

Born 1968

Employed since 2008

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

Previous positions include AFA Insurance.

GRI-index

GRI Standards	Content	Page reference
GRI 101 Foundation		
GRI 102 General disclosures		
Organisational profile		
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102-2	Activities, brands, products and services	AR 41-44
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102-4	Location of operations	AR cover
102-5	Ownership and legal form	AR 10, 46, 65-66
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102-15	Key impacts, risks, and opportunities	AR 18-19
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102-18	Governance structure	AR 18-19, 65-69
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102-50	Reporting period	AR cover
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102-52	Reporting cycle	AR cover
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102-54	Claims of reporting in accordance with the GRI Standards	AR 72-73
102-55	GRI content index	AR 72-73
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Abbreviations used in the GRI table:

AR = Annual Report 2020

CE = Council on Ethics of the AP Funds Annual Report 2019

H = Specification of holdings 2020

W = www.ap4.se

GRI Standards	Content	Page reference
GRI200 Ethics and Integrity		
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103-2	Sustainability governance and its components	AR 23-25
103-3	Evaluation of sustainability governance	AR 19, 20-21
406-1	Incidents of discrimination and corrective actions taken	AR 34-36
Human rights		
103-1	Explanation of the material topic and its boundary	AR 12, 19, 28-30
103-2	Sustainability governance and its components	AR 23-25
103-3	Evaluation of sustainability governance	AR 19-21
412-1	Human rights assessment	AR 19, 26-30
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Anti-corruption		
103-1	Explanation of the material topic and its boundary	AR 12
103-2	Sustainability governance and its components	AR 23-25
103-3	Evaluation of sustainability governance	AR 19-21
201-2	Financial risks and opportunities posed by climate change	AR 19, 28-29, 39-40
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103-1	Explanation of the material topic and its boundary	AR 14-19
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103-3	Evaluation of sustainability governance	AR 31-33
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103-1	Explanation of the material topic and its boundary	AR 14-19
103-2	Sustainability governance and its components	AR 23-25
103-3	Evaluation of sustainability governance	AR 31-33
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Emissions		
103-1	Explanation of the material topic and its boundary	AR 14-19
103-2	Sustainability governance and its components	AR 23-25, 31-32
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103-2	Sustainability governance and its components	AR 39-40, 48
103-3	Evaluation of sustainability governance	AR 39-40, 57
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Adapted TCFD table A1 with examples of climate-related risks

A central part of the TCFD’s recommendations entails evaluating and reporting climate-related risks. These are reported in accordance with the proposed structure in table A1 below. The table includes examples of risks that companies must take into account and manage in their operations and in investment analyses, and how the risks can be believed to affect an investment in companies/sectors/geographic markets. The risks are assessed with an investment horizon of up to ten years.

	Climate-related risks	Potential financial impact	AP4
TRANSITION RISKS	Regulatory risks		
	<ul style="list-style-type: none"> Higher pricing of GHG emissions Higher demands on climate reporting Increased regulations governing products and services Higher exposure to lawsuits 	<ul style="list-style-type: none"> Higher operating expenses (e.g., costs for compliance, insurance premiums) Depreciation, impairment losses and early phase-out of existing assets due to regulatory changes Higher costs and/or lower demand for products and services as a result of fines and rulings Reputational risk that affects demand and pricing 	<p>Since 2012 AP4 has been investing in a way that reduces climate risk in the portfolio. This is done by applying low-carbon strategies in the equity portfolio, which reduces exposure to companies with high carbon intensity, whose goals and plans are not considered to be aligned with the Paris Agreement and with a limited ability to manage higher carbon pricing. This applies above all for companies with considerable operations in thermal coal and oil sand, which AP4 divested in 2018. On the whole, these portfolio changes reduce AP4’s carbon footprint to a level that is less than half of what it is for a broad global equities index. In the credit portfolio, too, exposure is being reduced to companies that are not considered to be aligned with the ongoing climate transition for achieving the goals of the Paris Agreement.</p>
	Technical risks		
	<ul style="list-style-type: none"> Substitution of current products and services with alternatives with lower CO2 emissions Unsuccessful investments in new technology Costs for transition to low-carbon technologies 	<ul style="list-style-type: none"> Depreciation and early phase-out of existing assets Lower demand for products and services Costs for research and development of new and alternative technologies Investments in technical development Costs for adapting/using new methods and processes 	<p>AP4 has a long-term investment horizon, which enhances opportunities to include technical risks associated with the climate transition in its investment assessments. This is done in AP4’s thematic sustainability analysis, which seeks to identify sustainability trends along with their strength and time perspectives with the goal to gain an understanding of which value chains will be affected, to identify winners and losers, and by extension to find investable themes for AP4’s operative management. Technical risks are also mitigated through the low-carbon strategies described under regulatory risks above.</p>
Market risks			
<ul style="list-style-type: none"> Changes in customers’ preferences Uncertainty in market signals Rising costs for raw materials 	<ul style="list-style-type: none"> Lower demand for products and services due to changed customer preferences Rising production costs due to changed commodity prices and requirements for waste management Sudden and unexpected changes in energy costs Changed revenue mix, leading to lower revenue Changed pricing of assets (e.g., fossil fuel reserves, land and securities) 	<p>Market risks are managed through the thematic analysis that is described for technical risks above and through the low-carbon strategies described under regulatory risks above.</p>	
Reputational risks			
<ul style="list-style-type: none"> Changed consumption preferences Stigmatisation of sectors Greater worries among stakeholders or negative feedback from stakeholders Higher exposure to lawsuits 	<ul style="list-style-type: none"> Lower revenues due to lower demand for products/services Lower revenues due to reduced production capacity (e.g., permitting delays, supply chain disruptions) Lower revenues due to negative impact on e.g., ability to attract and retain employees Lower access to capital 	<p>AP4 believes that over time companies cannot be successful and give their owners a stable return unless sustainability aspects are given adequate and prioritised attention by their respective boards and managements. Brand risk is therefore a significant sustainability risk. Reputational risks are also managed through the thematic analysis that is described for technical risks above and through the low-carbon strategies that are described for regulatory risks above.</p>	

	Climate-related risks	Potential financial impact	AP4
PHYSICAL RISKS	Acute risks	<ul style="list-style-type: none"> • Lower revenues due to reduced production capacity (e.g., transport and supply chain disruptions) • Lower revenues and higher costs due to negative impact on employees (e.g., health, safety, absenteeism) • Depreciation and early phase-out of existing assets (e.g., damage to property or assets in high-risk areas) • Rising operating expenses (e.g., water shortages at hydro power plants and cooling water for fossil-based and nuclear power plants) 	<p>Based on studies of current research, AP4 has determined that there is a negative connection between climate change and growth, especially for individual areas, but also at an aggregated level. It is estimated that half of the impact on growth from climate change could be alleviated through adaptation measures. The connection between changed precipitation volumes and growth is more clearly seen in more arid countries. The impacts on growth of extreme weather and natural disasters can be positive as well as negative. The economic impacts of rising sea levels are negative. However, the causal connections are so numerous and uncertain that it is hard to say anything more specific concerning the growth and return potential, or for that matter using insights as present for concrete reallocations in the portfolio.</p> <p>Physical climate risks are also included in the climate scenario analysis, and the assessment is that the most apparent risk is stagflation due to negative supply shock.</p>
	Enduring risks	<ul style="list-style-type: none"> • Changes in precipitation patterns and extreme variations in weather patterns • Rising average temperature • Rising sea levels • Higher capital costs (e.g., damage to production plants) • Lower revenues due to lower sales/production • Rising insurance premiums and risk for lower access to insurance of assets in high-risk areas 	

Adapted TCFD table A2 with examples of climate-related opportunities

A central part of the TCFD's recommendations entails evaluating and reporting climate-related opportunities. These are reported in accordance with the proposed structure in table A2 below. The table includes examples of opportunities that companies are to take into account in their operations. In its investment analyses, AP4 takes into account how such opportunities are managed and how they can be believed to affect an investment in companies/sectors/geographic markets. The assessment is made with an investment horizon of up to ten years.

Climate-related opportunities	Potential financial impact	AP4
Resource efficiency		
<ul style="list-style-type: none"> • Use of more efficient transports • Use of more efficient production and distribution processes • Recycling • Relocation to more energy-efficient buildings • Reduced water use and water consumption 	<ul style="list-style-type: none"> • Lower operating expenses (e.g., through efficiency gains and cost reductions) • Increased production capacity, which leads to higher revenues • Growth in value of fixed assets (e.g., energy-efficient properties) • Benefits for employees (e.g., improved work environment with respect to health and safety, more satisfied employees), which leads to lower costs 	AP4's thematic analysis has identified three broad areas – energy transition/mobility, resource efficiency and renewable energy. Based on the thematic analysis, AP4 has made investments in unlisted assets in the area of resource efficiency.
Energy sources		
<ul style="list-style-type: none"> • Use of lower-emitting energy sources • Policies that support the transition • Use of new technologies • Participation in CO2 emissions markets • Decentralised electric power generation 	<ul style="list-style-type: none"> • Lower manufacturing costs • Reduced exposure to rising prices for fossil-based energy • Reduced exposure to greenhouse gas emissions and therefore less sensitivity to higher costs for CO2 emissions • Return on investment in low-emitting technologies • Greater access to capital (due to more investors preferring low-emitting producers) • Improved reputation, leading to higher demand for products/services 	AP4's thematic analysis has identified three broad areas – energy transition/mobility, resource efficiency and renewable energy. Based on the thematic analysis, AP4 has made investments in unlisted assets in the areas of energy transition and renewable energy.
Products and services		
<ul style="list-style-type: none"> • Development and/or expansion of products and services with low emissions • Development of solutions for climate adaptation and insurance solutions • Development of new products through research and development • Ability to diversify business activities • Changes in consumption preferences 	<ul style="list-style-type: none"> • Higher revenues through greater demand for products and services with lower CO2 emissions • Higher revenues by meeting new needs that arise in the transition (e.g., insurance solutions) • Improved competitive position that reflects changed consumption patterns and leads to higher revenues 	AP4 searches for, evaluates and makes thematic, proactive investments in specific sustainability areas. Examples of such investments are green bonds, alternative investment funds with a pronounced sustainability focus, and directly owned companies with a distinct sustainability focus as part of their business strategies, such as in real estate and infrastructure.
Markets		
<ul style="list-style-type: none"> • Access to new markets • Use of public sector incentives • Access to new assets and places that need insurance protection 	<ul style="list-style-type: none"> • Higher revenues through access to new and emerging markets (e.g., through partnerships with governments and development banks) • Greater diversity of financial assets (e.g., green bonds and infrastructure) 	AP4 searches for and invests in dedicated sustainability investments in various markets and asset classes that can contribute to and benefit from the ongoing climate transition.
Resilience and ability to recover		
<ul style="list-style-type: none"> • Participation in renewable energy programmes and application of more energy-efficient methods • Replacement/diversification of various resources 	<ul style="list-style-type: none"> • Higher market value through planning for management of climate-related risks (e.g., infrastructure, land, buildings) • Greater reliability in supply chain's ability to work under varying conditions • Higher revenues through new products and services for addressing climate change and its risks 	AP4 searches for and invests in dedicated sustainability investments in various markets and asset classes that can contribute to and benefit from the ongoing climate transition.

AP4's long-term perspective, responsibility as owner and great commitment to sustainability create opportunities for high returns at a low cost. In this way AP4 works for more secure pensions.