

2021

Annual Report

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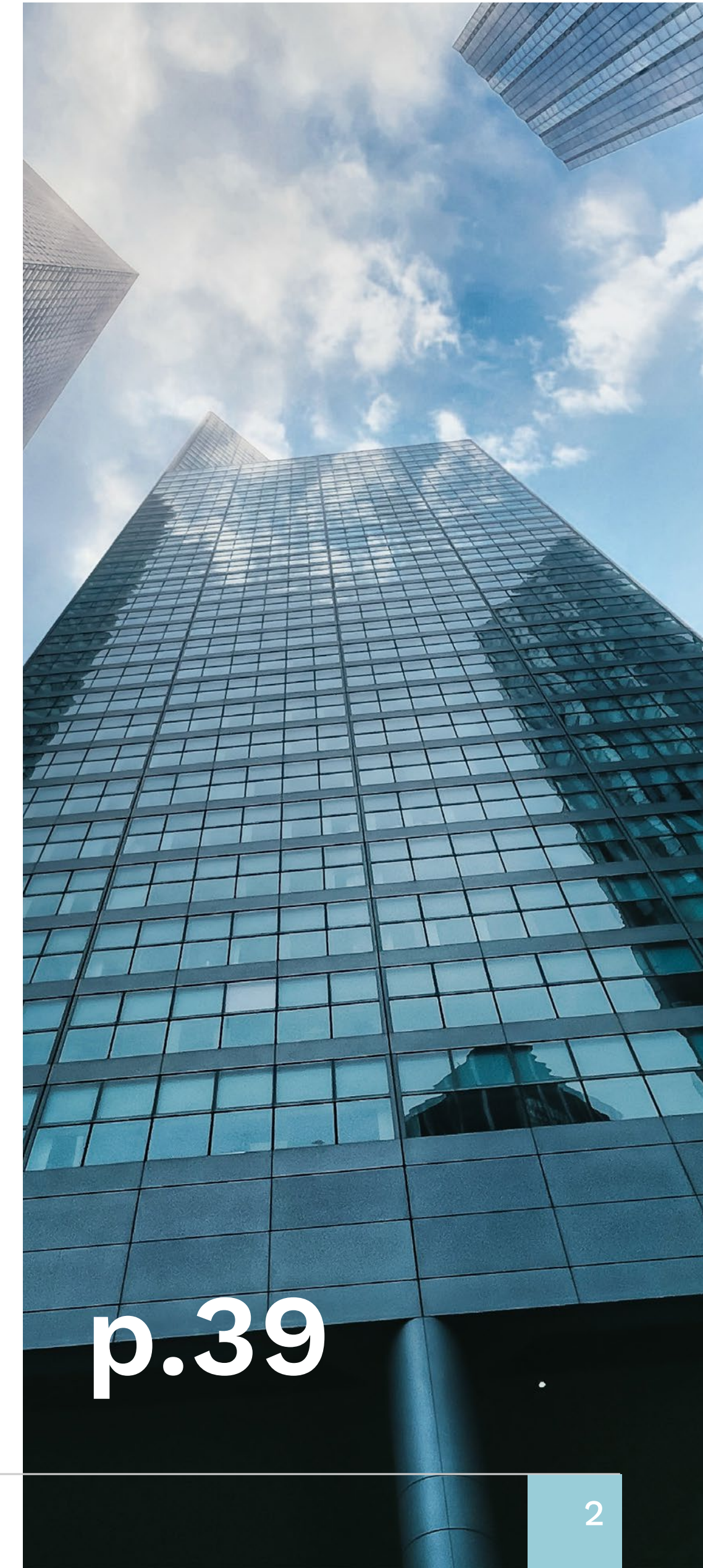
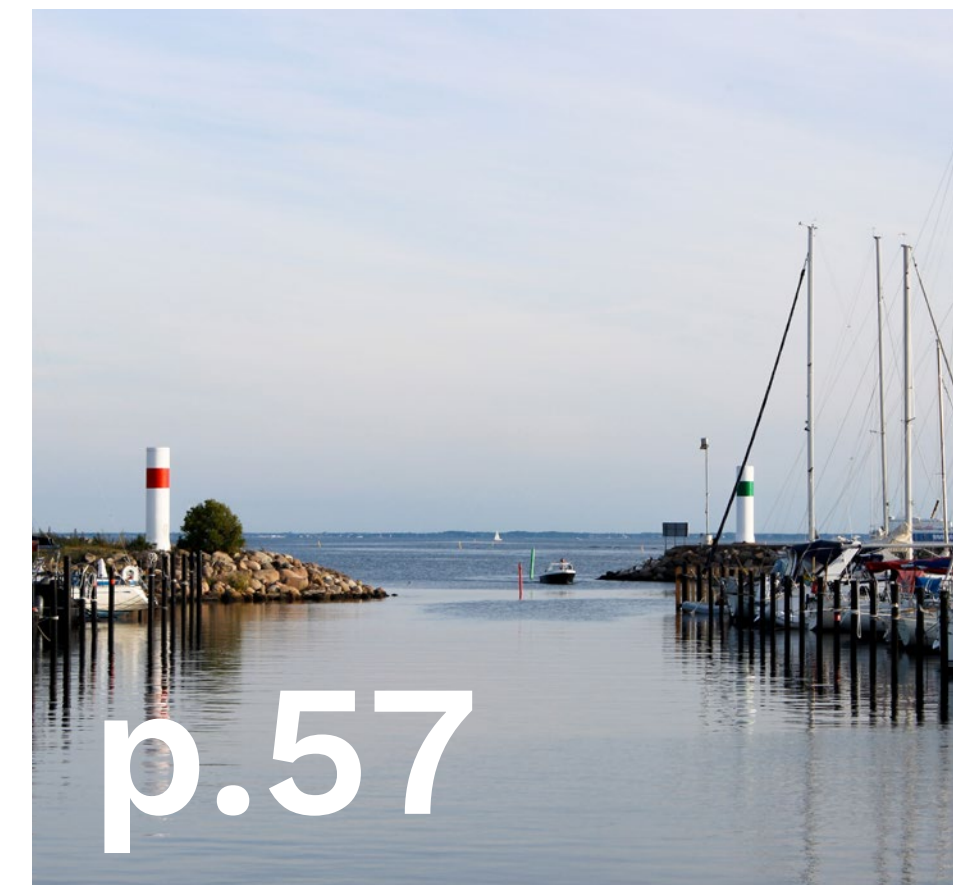
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The Fourth Swedish National Pension Fund's (AP4) report for 2021 includes, apart from the annual report, also a business review with sustainability reporting and a fund governance report. AP4's sustainability reporting is based on the AP Funds' joint guidelines for reporting how the goal of exemplary management has been achieved. AP4 strives to follow the guidelines for sustainability reporting set out in the Swedish Annual Accounts Act as well as the GRI Standards. Figures in parentheses pertain to the preceding year.

The year 2021

As in the preceding year, 2021 was largely characterised by Covid-19. The strong economic recovery that began during the second half of 2020 continued with full strength in 2021. This was reflected in strong performance of the world's financial markets and a very favourable return for AP4 in 2021.

Key ratios for 2021

19.2

% return after costs.
The return before costs
was 19.3%.

85.7

SEK billion in net result
for the year.

3.5

% active return.
Active management made a
positive contribution of SEK 15.2
billion to the result for the year.

7.5

SEK billion, net, transferred
from AP4 to the pension
system.

527.6

SEK billion in fund capital
at year-end 2021.

0.08

% in total costs in 2021.
Operating expenses
amounted to 0.05%, and
commission expenses
amounted to 0.03%.

23

% lower carbon footprint in
2021 than 2020. Since 2010
AP4 has reduced the portfolio's
carbon footprint by 60%.

13.7

SEK billion in new
thematic sustainability
investments in 2021.

Very good return in 2021 against the background of continued strong economic recovery

2021 was without a doubt an eventful year, which just like 2020 was largely affected by Covid-19. The strong recovery that began during the second half of 2020 continued with full strength in 2021. Even though this was in line with our expectations ahead of 2021, we were surprised by the strength at which the recovery drove value growth of many financial assets. During 2021 AP4's portfolio exceeded SEK 500 billion for the first time and was worth SEK 527.6 billion at year-end.

AP4 reported a very favourable return of 19.2% for the year after costs, and the net result for the year was a full SEK 85.7 billion. This is the highest result since AP4 began operating in 1974.

Following a strong 2021, AP4's return since the start of the new pension system in 2001 has averaged 7.2% per year after costs. This long-term return exceeds the income index – the index with which the pension system's liabilities side is indexed – by an average of 4.3% per year since

2001. This corresponds to SEK 307 billion and entails that AP4 has made a significant contribution to the growth of the buffer funds' aggregate share of assets in the income pension system, from 10% at the start in 2001 to just under 18% at year-end 2021.

Uncertain future outlook – with positive point of departure

We find ourselves in an interesting and at the same time uncertain macroeconomic environment. It

can be described as such that we, to a great extent, have left the acute crisis management phase of Covid-19 and now find ourselves in a transitional phase between the initial recovery and the phase that is determining the structural preconditions for future long-term economic development. This is not a process that is moving in the same direction, however. Instead, we are moving a little forward and backward between the phases, mainly depending on how the pandemic progresses – something that we were recently





reminded of in a most tangible manner with the rapid spread of the new omicron variant of the coronavirus.

A key reason why the economic recovery has gone so fast and been so strong up until now is the historically unique, rapid development and mass production of effective vaccines that we have witnessed. However, one should not underestimate the significance of the very powerful and swift monetary and finance policy measures that have been taken during the past two years to support the world's economies. Even though the crisis management measures taken to support society and the economy in the face of the pandemic have in many respects further accentuated the problems that have been built up since the financial crisis, central banks and the political system are to be commended for their resolute action. To some extent, the resolve that has been shown can presumably be credited to the fact that many of the measures that have been necessary to take thus far have been relatively uncomplicated in terms of their design and also have proved to be relatively easy to reach political agreement on.

The policy decisions by central banks and politicians that will be needed going forward for the continued recovery – and not least to lay the groundwork for sound

development of the economy more long-term – will in general be considerably more challenging. This applies for their design as well as for the opportunities to garner sufficiently strong and broad political support for their implementation. On top of decisive significance for long-term economic development,



Central banks and the political system are to be commended for their resolute action to support society and the economy during the crisis management phase of the pandemic.

the policy decisions that are made during the next phase of the recovery will also have a decisive impact on the global economy's ability to deal with the significant challenges that lie ahead as well as the large imbalances that have developed during the past decade or so as a consequence of the handling of the financial crisis, the euro crisis and the pandemic (such as extreme levels of interest rates, strained valuations of financial assets and large accumulation of debt).

Against this backdrop, we are facing an unusually uncertain

economic environment with a number of relatively likely economic scenarios with widely varying outcomes. Our main scenario can be described as a bit of “muddling through”. To be more exact, this scenario entails that the strong recovery that we experienced in 2021 will continue a bit into 2022, to then step-by-step more or less return to the long-term average growth rate that we experienced from the time of the financial crisis until the Covid-19 outbreak. That is, a scenario characterised by a gradual adjustment to a situation with historically rather low economic growth and weak productivity development.

That said, we believe that there are also relatively favourable conditions for more positive economic development. However, realisation of a more positive scenario will require investment decisions from policy and public sector standpoints that to a sufficiently high degree succeed in strengthening productivity and the economy's structural way of functioning. It will be particularly important that society – in a constructive and positive way – succeeds in embracing the opportunities created by the necessary transition to fossil-free living and the rapid pace of digitalisation that is taking place in all parts of society. In order for such a

more positive economic scenario to be realised, it is essential that we succeed in upholding a world order that to the greatest extent possible is based on international cooperation and the continued global exchange of products and services. If the world manages to make the decisions needed for economic development in a more positive direction, then the conditions will also be present to successfully normalise monetary policy over time as well as deal with the enormous debt burden that has been built up.

Unfortunately, on the other hand there is also a distinct likelihood for a more negative scenario that also entails the possibility of stagflation, with severe consequences for the real economy and financial markets. Moreover, in the event of more negative economic development, there is a tangible risk that the large imbalances that have been built up during the last decade will result, over time, in a significant and growing burden for the world economy. This is because these imbalances will require sufficiently high economic growth in coming years to normalise the situation without significant negative consequences.

Finally, we can ascertain that there are a number of strong

forces that are pulling in divergent directions. The exact nature of these tugs-of-war will vary over time. Of particular significance right now is the tug-of-war between the hope for a prolonged period of strong economic growth with positive earnings performance in the corporate sector, and the worries over more permanent inflation owing to the major stimulus measures and bottlenecks, with austere monetary policies and negative impact on economic activity as a result.

Even though we have a positive basic view with respect to our main scenario, the divergent forces described above entail that there is unusually great uncertainty about the future economic development. They will likely also at times also lead to nervousity and market turbulence. In general, in the coming years we cannot expect to see a corresponding, unusually favourable investment environment and very favourable returns on financial assets that we have experienced during the past ten years.

The uncertain economic environment that we are currently in entails major challenges for an investment portfolio. For this reason, in recent years AP4 has striven to gradually increase the robustness of its asset allocation. The ambition is



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that AP4's highly diversified basic allocation will be especially adapted for our main economic scenario, but at the same time it will also have satisfactory qualities in our alternative economic scenarios. During 2021 AP4 further strengthened the investment portfolio's robustness through a continued larger allocation to real assets. On top of this we have also introduced a new asset class in our basic allocation – which we call defensive equities – and which is specifically designed to add return potential as well as have stabilising characteristics in a more problematic economic environment.

Conditions for accelerated climate transition

AP4 is a very long-term investor, and with the time perspective that we



have for our investments, sustainability risks can significantly impact long-term returns. This has made it natural as well as necessary for AP4 to have inclusion of sustainability as one of our fundamental investment beliefs. Against this background, AP4 also has a tradition of working with sustainability in its asset management that dates back several decades, and today integration of sustainability is a natural feature in all our investment work.

Even though Climate & Environment has always been an

important part of AP4's sustainability work, AP4's focus on this area increased significantly a little over ten years ago, when we came to the insight that the climate transition represents one of the greatest challenges of our time and that climate risks are not correctly priced in the market. This insight, in turn, led to AP4's introduction of the first low-carbon strategy (i.e., an investment methodology designed to reduce the carbon footprint) already in 2012. Since then, the work with our low-carbon strategies has



been developed to high degree, and this work has also been broadened to encompass all asset classes and all our investment processes.

AP4's work on managing climate risks in its investment portfolio has also generated results, and as an example, since 2010 we have cut the carbon footprint of our investments in equities by more than half. AP4 also has an ambitious agenda for further developing both our ability to take advantage of the opportunities that come with the climate transition and manage climate risks in our investments, and we have set a target to once again halve our carbon footprint by 2030 with a view to achieve net-zero emissions by 2040 at the latest.

The climate transition, in the meantime, is a global challenge in every sense, and what's important is not what individual actors succeed in achieving; what is meaningful is how fast and to what extent the world as a whole manages to reduce the overall carbon footprint. This work has historically been listless, and the reduction has been taking far too long. However, I feel some optimism that the transitional work will accelerate significantly and gain real momentum in the coming years. This is due in part to the rapid technological development that we are seeing in many climate-sensitive

sectors, but also to the change in the socioeconomic and political discussion that we witnessed during the past year in various international contexts as well as in many individual countries (including Sweden).

Whether you regard the global climate summit that was recently held in Glasgow (COP26) as a failure or success depends on what expectations you had before the summit and what you believed was reasonable to achieve. Even though there is obviously much to be disappointed about regarding the climate summit, I nevertheless choose to be positive and feel that many important steps were taken during the summit in Glasgow. In evaluating COP26 it is important to keep in mind that much was achieved already in the preparations ahead of the summit. For example, approximately 140 countries raised their national climate undertakings (NDCs, or Nationally Determined Contributions) as part of their planning ahead of COP26, and just prior to the meeting in Glasgow, many companies and institutions announced various types of pledges to achieve net-zero emissions in the future. On top of what transpired prior to COP26, during the actual summit the participants also managed to negotiate and sign

a new accord, where a number of important points were also concretised. Even more important, however, I feel that the discussions

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It must be possible to combine the climate transition with sufficient economic growth in order to be politically and socially acceptable. Energy use is very closely tied to economic growth, and the world's energy need can therefore be expected to continue growing.

at this climate summit overall were considerably more resolute than previously, with greater focus on the most essential issues for being able to accelerate a successful transition to a fossil-free society.

A few years ago AP4 made an extensive undertaking to concretise our view of the climate transition. Part of this work was also aimed at formulating the areas which, according to AP4, need to be prioritised and focused on in order for the world to be successful in meeting the climate goals and achieve climate neutrality. Much to

our pleasure, several of the areas that AP4 identified in its analysis were brought up at the climate summit and were also discussed in a concrete way by far more and considerably more important actors than what was the case previously. Following are examples of such important areas that I want to highlight in particular:

- The need for global pricing of carbon emissions to accelerate the transition by giving all actors a uniform incentive to reduce their carbon emissions
- The need to quickly reduce the large dependence on coal, so that this particularly problematic fossil fuel can immediately begin to be phased out
- That support must be provided to countries and regions that have special challenges (especially developing countries). The climate issue is a global problem, and everyone must be given the conditions to make a contribution if we are to be successful
- That it must be possible to combine the climate transition with sufficient economic growth in order to be politically and socially acceptable. Energy use is very closely tied to economic growth, and the world's energy need can therefore be expected to continue growing

- Fossil-free electricity is the actual motor in the transition. To be successful with the transition, then consequently the capacity to generate and distribute fossil-free electricity must be expanded at a pace that is at least as high as the energy from fossil fuels is phased out
- To quickly succeed with the transition, the climate goals need to be more strongly prioritised to avoid the risk of being edged out by other interests and goals

The importance of long-term and responsible owners

Something that was further reinforced at COP26 was the business and finance sectors' importance in driving the climate transition. Their respective roles in the transition via changed business models, technological innovation and financing of the transition have long been in focus. Moreover, at the climate summit it was made clearer than ever before that the business sector also has a central role to play as a driver in the political system, ensuring that it manages to prioritise the climate issue and take the hard but entirely decisive decisions that are needed to ensure a successful transition to a fossil-free society.

In this context, as a large institutional investor AP4 has many

important duties – not least in its role as a long-term and responsible owner. Unfortunately, it is often asserted that a responsible owner should refrain from investing in



If you genuinely want to take responsibility as an investor and contribute to the transition in a powerful way, you must have the resolve to be active and drive the transition also in the most carbon-intensive parts of the economy.

sectors with sustainability challenges. With respect to the climate transition, AP4's position is rather the opposite. If you genuinely want to take responsibility as an investor and contribute to the transition in a powerful way, you must have the resolve to be active and drive the transition also in the most carbon-intensive parts of the economy.

In spite of everything, it is so that the majority of the most problematic sectors from a climate change perspective produce products and services (or at least climate-adapted

substitutes for them) that are societally important and will be essential and in demand for a long time to come. AP4 therefore believes that taking responsibility does not mean refraining from investing in companies only because they are active in sectors with significant climate challenges. Rather, AP4's ambition in these sectors is to identify and act as a long-term engaged owner in companies that in a professional and serious way are addressing and actively working with their climate challenges, and have the intention to adapt their operations over time. That is, companies that today may have a large carbon footprint, but that at the same time – through their climate work – are entirely crucial for the successful achievement of the climate goals.

As an example of the above, in recent years AP4 has established a team for fundamental equities selection within the most carbon-intensive sectors of our global equity portfolio. One aim of this is to concentrate holdings in these sectors to a smaller selection of companies that share in common the fact that they – on top of their strong business models – are also at the forefront of the transition to climate-neutral operations.

If we use the energy sector as an illustration, to remain in AP4's

portfolio, companies need to have clear goals and ambitions that are aligned with the Paris Agreement and have substantial and growing investments in fossil-free energy production. The latter is important, since several traditional energy companies are, or are on track to becoming, among the world's largest investors in energy sources that are fossil-free and will thereby play an important role in the climate transition.

Our fundamental approach entails, as mentioned, that we are concentrating our holdings in carbon-intensive sectors to far fewer companies than previously (for example, we have reduced the number of energy companies from more than 50 to around 10). This, in turn, gives AP4 the opportunity to be an even more active and demanding owner and thereby make a contribution to ensuring that the positive development continues in the companies that we continue to have ownership in.

Awards for AP4

One prerequisite for AP4's success at fulfilling its mission in the best way possible and in accordance with our highly set ambitions is that we continuously develop our operations. We were successful in this regard in 2021, despite the restrictions we



continue to work with due to Covid-19. The greatest proof that our resolute development work has paid off can be seen in AP4's historically favourable asset management result, which also vouches for the fact that AP4 has fulfilled its assignment to strengthen the Swedish national pension system. Further confirmation of AP4's ability to be an internationally leading pension fund over time can be seen in the total of six awards that AP4 received at IPE's conferences in 2021. These

awards are inspiring and motivating, but also the result of the dedicated and ambitious work that AP4's employees made every day of the year. I feel both proud and privileged to have such amazing colleagues, and I am honoured to work in an organisation with such an incredibly interesting and important mission.

Stockholm, 22 February 2022
Niklas Ekvall, CEO

Highlights 2021

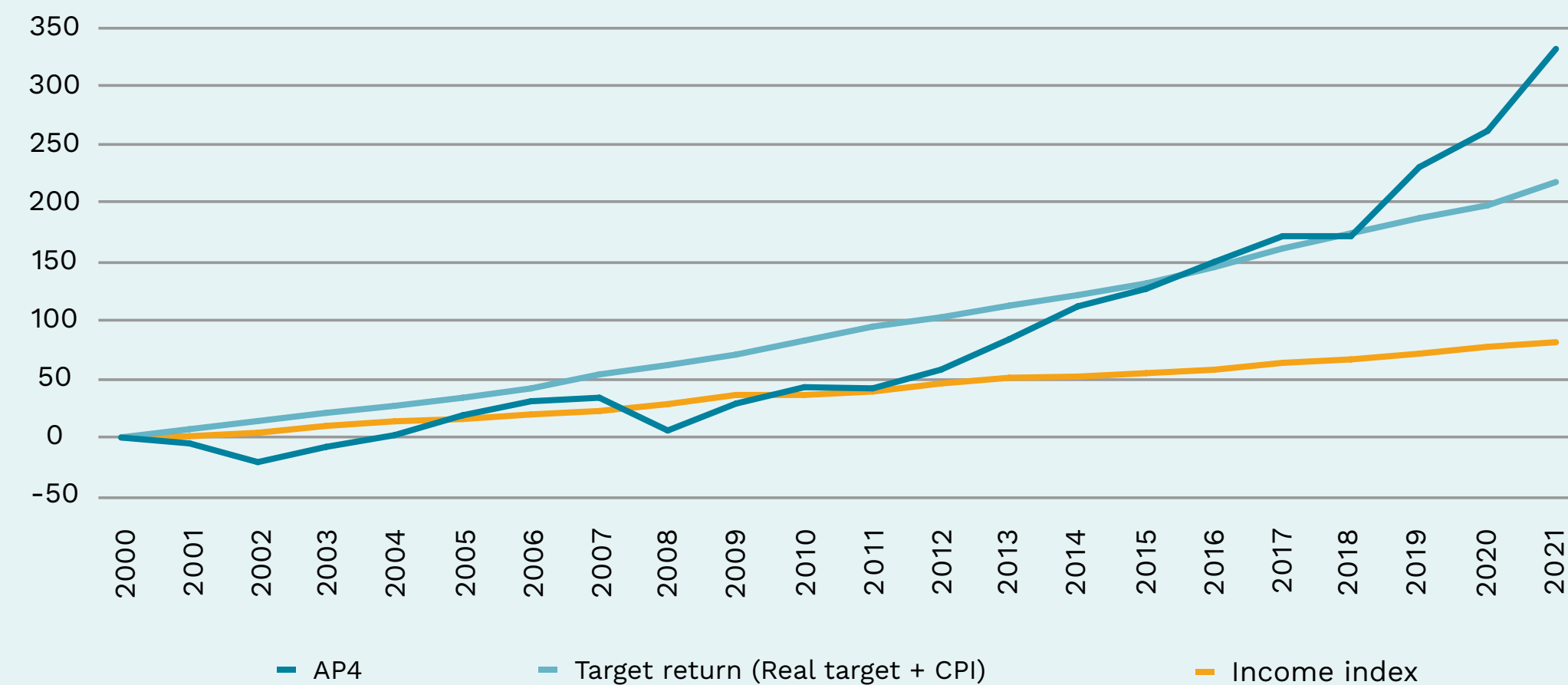
AP4 has contributed to the stability of the pension system

AP4's return after costs was 19.2% in 2021. Since the start of the new pension system in 2001 AP4 has exceeded the inflation-indexed long-term real return target set by the Board of Directors as well as the performance of the income index. The return after costs has averaged 7.2% per year, compared with an average of 5.7% per year for the

inflation-indexed required real rate of return and 2.9% per year for the income index. AP4 has thereby achieved its mission to contribute to the stability of the pension system. The pension system is considerably stronger today than at its start in 2001 at the same time that there is a steadily shorter remaining period of outflows for demographic reasons. This,

combined with an expectation for lower returns on financial assets going forward, prompted AP4's board ahead of 2021 to slightly lower the long-term return target over 40 years, from an annual real return of 4.0% to 3.5%, instead of increasing the portfolio's risk level to maintain the previous target.

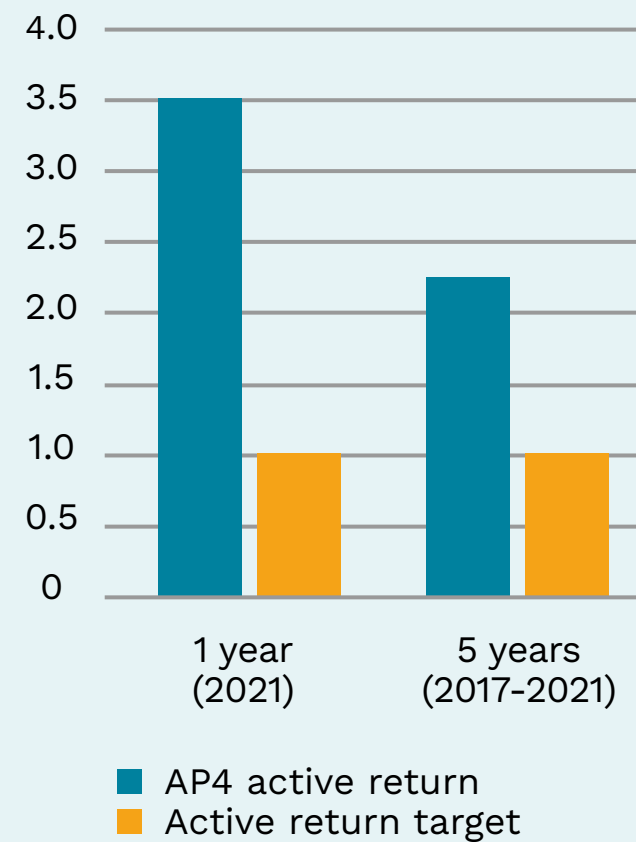
Return after costs since start in 2001, %



Femårsöversikt	2021	2020	2019	2018	2017
Fund capital (SEK bn)	527.6	449.4	418.0	349.3	356.6
Net flows to the pension system (SEK bn)	-7.5	-7.9	-6.5	-6.8	-7.4
Net result for the year (SEK bn)	85.7	39.3	75.2	-0.5	30.1
Return, total portfolio before costs (%)	19.3	9.7	21.8	-0.1	9.2
Return, total portfolio after costs (%)	19.2	9.6	21.7	-0.2	9.1
Active return, before costs (%) ¹	3.5	2.4	4.4	2.3	-1.1
Return, total portfolio after costs, (%) annualised 5 yrs	11.6	9.8	9.3	8.1	11.5
Return, total portfolio after costs, (%) annualised 10 yrs	11.8	9.7	9.9	9.9	7.3
Standard deviation total portfolio, ex-post (%) ²	6.1	13.6	5.3	6.4	4.1
Standard deviation total portfolio, ex-post, 10 yrs (%) ³	7.8	8.3	6.7	7.5	8.6
Sharpe ratio total portfolio, ex-post (%) ²	3.2	0.7	4.2	0.1	2.5
Active risk ex-post, active management (%) ⁴	1.9	1.7	1.2	1.5	1.7
Currency exposure (%)	20.9	21.0	19.8	18.4	18.4
Asset management costs, excl. commission expenses (%)	0.05	0.06	0.06	0.06	0.06
Asset management costs, incl. commission expenses (%)	0.08	0.09	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 hedged to SEK in order to simplify and increase transparency. AP4 can use its tax status as a state pension fund, and during 2021 this gave a positive contribution of 0.16 percentage points (0.18). Active return is calculated as the difference in returns between the operative portfolio and the benchmark portfolio.
 2) Pertains to daily return data unless indicated otherwise.
 3) Pertains to quarterly data for total assets.
 4) 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.

Annual active return before costs, %

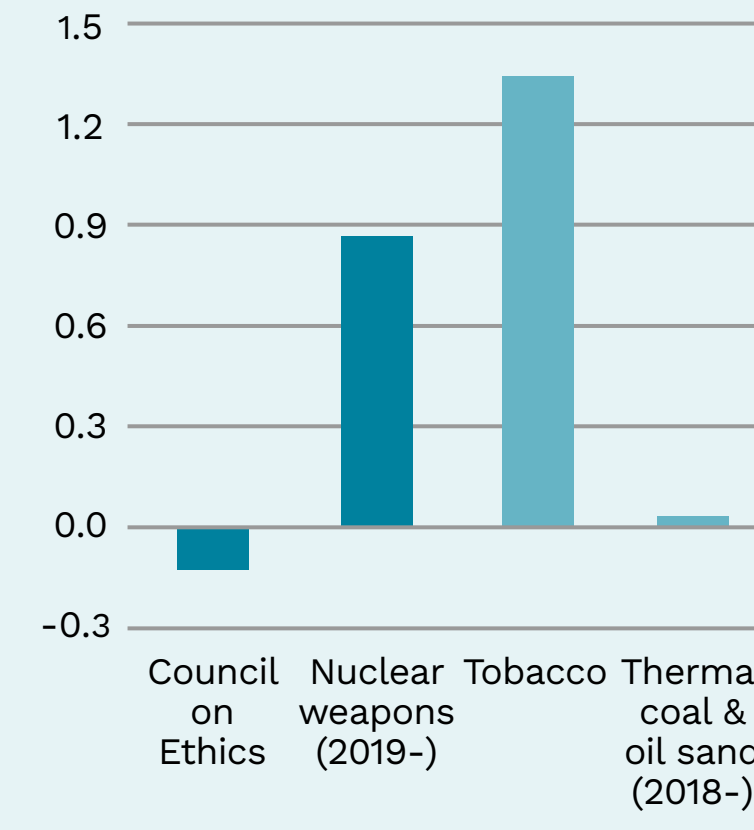


Active management making positive contribution to result

AP4's active management contributed to portfolio's return being 3.5 percentage points higher than the benchmark index for 2021, which represents value added in the asset management of SEK 15.2 billion during the year. Measured over a five-year evaluation horizon, the active return was an average of 2.3 percentage points per year, which is higher than the active return

target of 1.0 percentage point per year. In total, AP4's active return made an active result contribution of SEK 44.8 billion during the last five years. During 2021, management of real assets made the largest positive contribution to the active result. The asset classes Swedish Investments and Global Equities also made positive, active return contributions in relation to AP4's benchmark, the Dynamic Normal Portfolio (DNP).

Return contribution of norm-based decisions, %¹



Positive return contribution from norm-based decisions

AP4 follows up the return impact of norm-based sustainability decisions in the portfolio over an evaluation horizon of five years, or from when the sustainability decision was first made in cases where it pertains to a shorter time period than five years. A positive return contribution in the chart at left shows, for example, that decisions to exclude certain companies have resulted in positive contributions to the global

equity portfolio's return compared with a broad stock market index and vice versa. Norm-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 grounded in business logic in the sense that they are expected to contribute to the return. However, norm-based decisions that are also grounded in business logic are expected to make a long-term contribution to the return of AP4's portfolio.

¹) Pertains to accumulated return over 5 years (or shorter period in cases where the decision pertains to a shorter period than 5 years). The return contribution is calculated using global equities as a base.

Responsibility as owner

Active corporate governance is an asset management focus area and contributes increasing and securing shareholder value. As a long-term and engaged owner, AP4 takes responsibility and works in the best interests of each individual company and its shareholders, and advocates for generally accepted practices in well-working stock markets. An integral part of the management entails working on board nomination committees,

voting and general meetings of shareholders and, with respect to investments in unlisted companies, also serving on boards, investment

committees or corresponding investor bodies. In this way AP4 helps ensure that its investments are governed and run in the best way.

Key data, corporate governance

	2021
Number of Swedish company nomination committees	40
Number of Swedish company AGMs	147
Number of foreign company AGMs	1 064
Number of investment committees and boards in unlisted investments	62

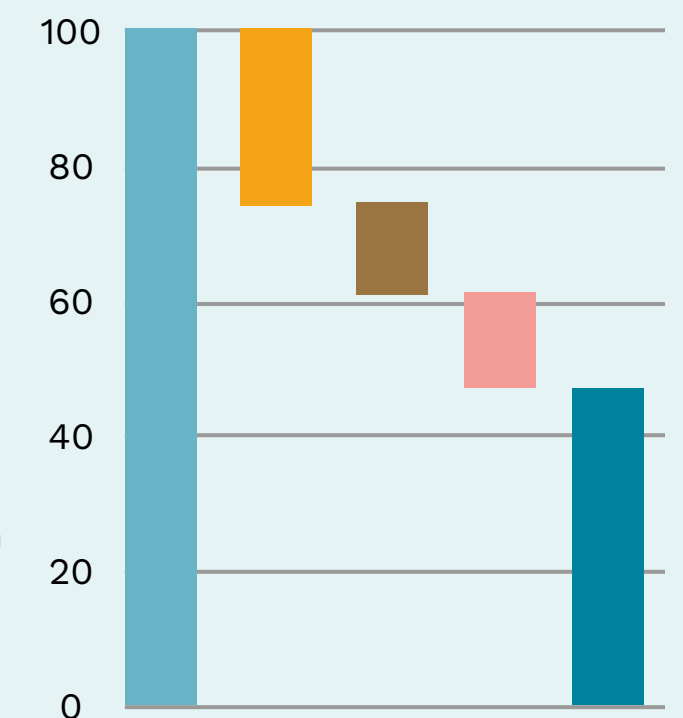
High cost-efficiency

An analysis conducted by CEM Benchmarking for 2020 shows that AP4's cost level is less than half that of comparable international pension funds. 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 having lower costs mainly for asset management fees than the comparison group.



International cost comparison, %



Continued reduction of carbon footprint

During 2021 AP4 achieved a further reduction in greenhouse gas emissions in the listed equity portfolio, by 23%. Since 2010 these emissions have decreased by a total of 60%, resulting in reduced climate risk in the portfolio.

AP4 measures and reports greenhouse gas emissions in accordance with uniform guidelines used by the AP Funds. These pertain to listed equities, which accounted for 64% of AP4's portfolio at year-end 2021. In addition, AP4 also reports emissions for the unlisted real estate portfolio, which accounts for another 9% of total fund capital. AP4 is working continuously to broaden this measurement and reporting to an even larger share of the portfolio, as data with sufficient coverage and quality becomes available.

The internal group for fundamental thematic equity management that was established in 2020 has continued its work with company selection in resource-intensive sectors. The energy sector was analysed in 2020, and in 2021 the utilities and

materials sectors were analysed. Companies whose plans and goals are considered to be not aligned with the Paris Agreement's goals have been divested from the portfolio. In the energy sector, AP4 has focused its investments on companies that are on track to becoming integrated energy companies with a growing share of investments in renewable energy. With respect to power companies, focus is on producers of renewable energy and electricity distribution companies, which are benefiting from electrification, and hydro power companies, which have low carbon emissions. Key themes for the companies that AP4 continues to invest in in the commodities sector are recycling, production of materials that are replacing carbon-intensive materials, and forest-owning companies.

AP4's carbon footprint is approximately 39% of that for a broad, global equity index (MSCI All Countries – ACWI). AP4's low-carbon strategies and AP4's substantial overweighting in Swedish equities both contribute to a lower carbon footprint. AP4

has a higher portfolio allocation in emerging market equities than a broad equity index. This has contributed to a relatively higher carbon footprint. During 2021, AP4 together with external asset managers of emerging market equities analysed the opportunities to reduce the carbon footprint of AP4's investments in emerging market equities through a changed optimisation strategy. This change was one of the factors that contributed to the reduction of AP4's carbon footprint in 2021 by a total of 23%.

Of this decrease, 18 percentage points are attributable to reduced carbon emissions in the portfolio achieved by AP4 through portfolio changes. To achieve the climate targets, the companies that AP4 has invested in must also reduce the carbon emissions of their respective operations. In 2021 this contributed to a decrease of 5 percentage points.

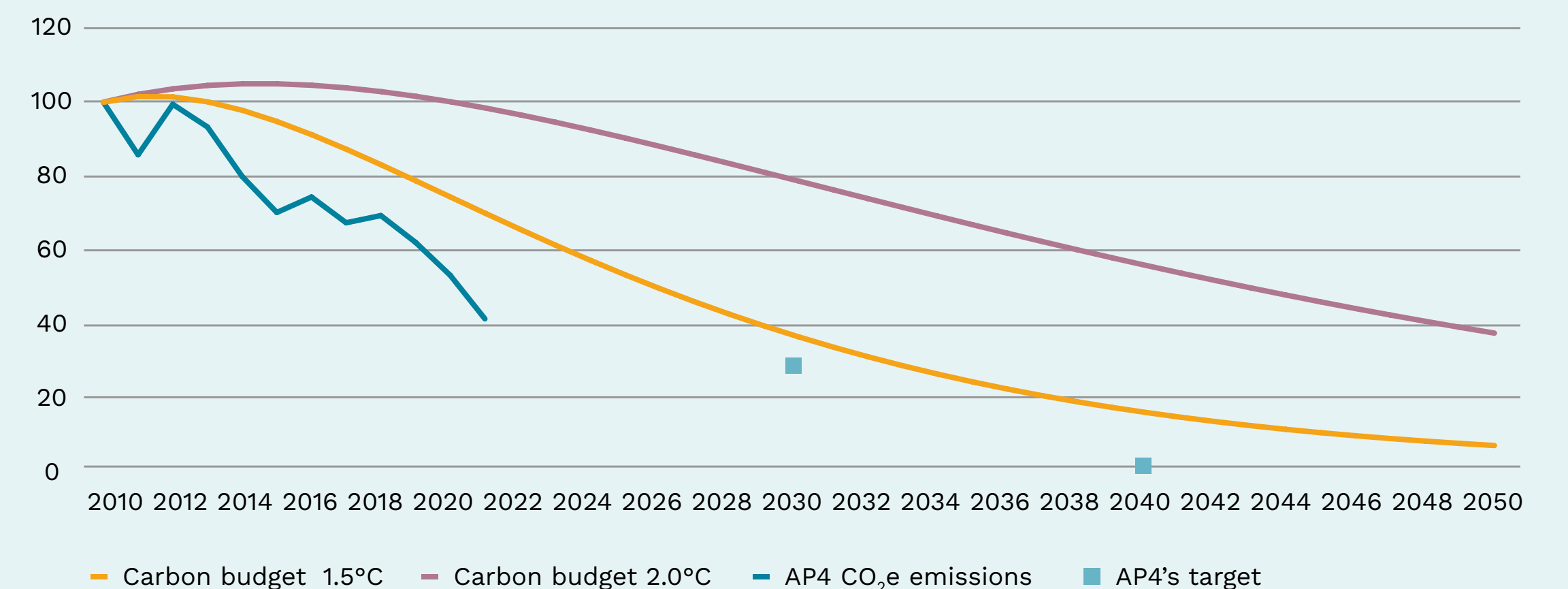
23

% reduction of carbon footprint in 2021

60

% reduction of carbon footprint since 2010

Annual CO₂e emissions¹ (index 2010=100)



¹) Source: Robbie Andrew (2019) based on the Global Carbon Project and IPCC SR15, and AP4's calculations.

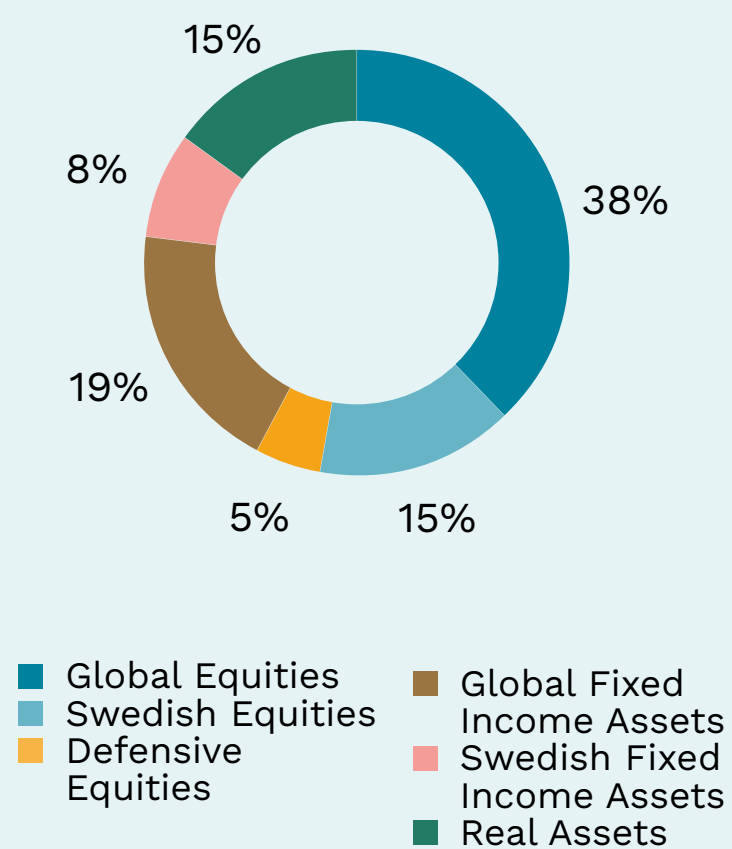
Defensive Equities new asset class

Every three years AP4 conducts a long-term Asset Liability Management (ALM) analysis of the pension system's long-term needs and required rate of return over 40 years. Such an analysis was most recently conducted in 2020 and showed, among other things, that a suitable long-term equity allocation continues to be in the range of 50%-70% of the portfolio, which is justified by the long-term higher expected return than for other asset classes.

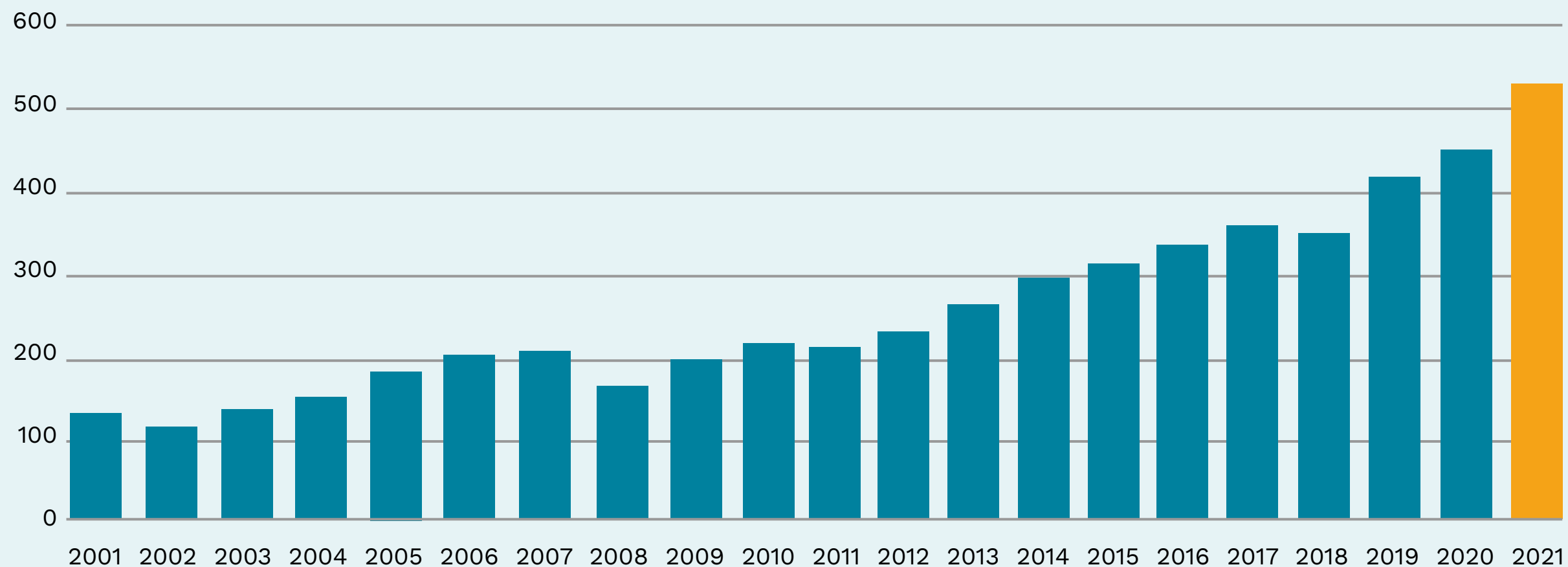
Starting in 2022 AP4 has decided to introduce a new asset class, Defensive Equities, to the Dynamic Normal Portfolio (DNP), which is the benchmark portfolio used for the operative asset management that the Board decides on yearly. The weighting for Defensive Equities in the DNP is 5% and is funded from Fixed Income Assets and Global Equities. As the name suggests, Defensive Equities consist of stocks, but these are weighted together in a different way than for a market-weighted index in

order to achieve desired characteristics regarding the expected return and level of risk of this new asset class. More precisely, the asset class is intended to add return potential, but also to have stabilising characteristics in a market environment in which the probability for negative market scenarios has risen.

Dynamic Normal Portfolio ahead of 2022

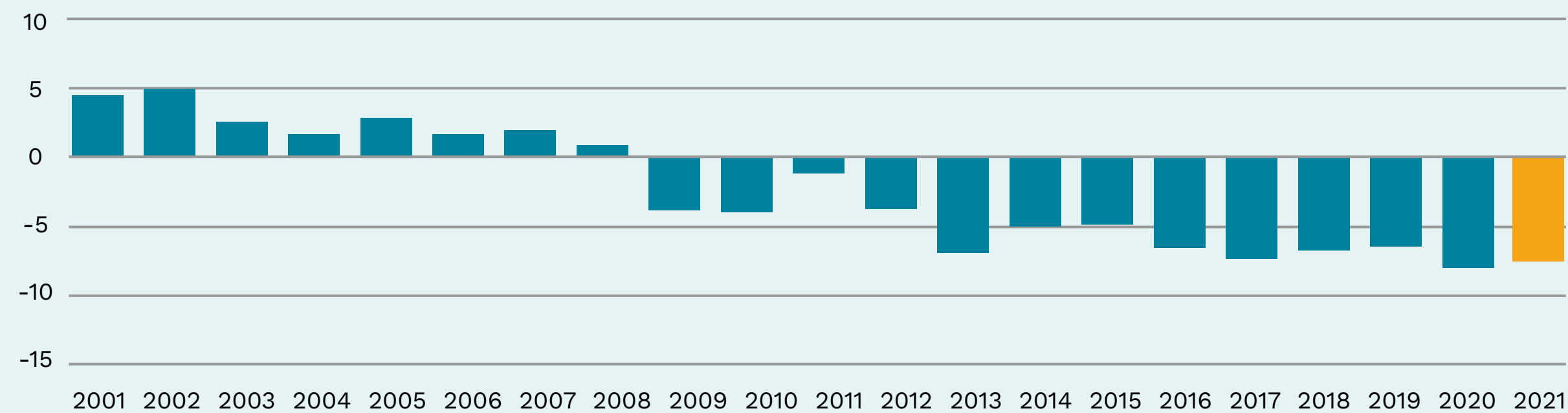


Closing fund capital (SEK billion)



AP4's closing fund capital increased from SEK 134.0 billion at the start of the new system in 2001 to SEK 527.6 billion at year-end 2021. This increase in fund capital took place at the same time that a net sum of SEK 51.4 billion was paid out from AP4 to the pension system.

Yearly net flows to the pension system (SEK billion)



During the first eight years of the new pension system, from 2001 to 2008, AP4 received net inflows from the system, but since 2009 AP4 has made net payments to the system every year. These net payments from AP4 to the pension system amounted to a combined sum of SEK 72.6 billion from 2009 to 2021.

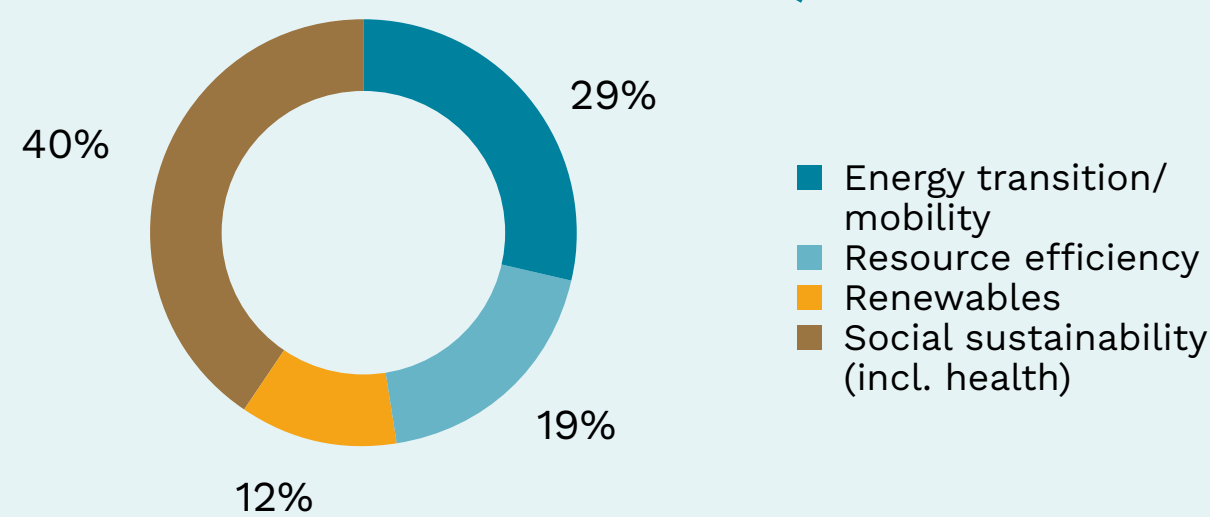
Continued increase in thematic sustainability investments

AP4 continuously analyses sustainability trends and performance in various sectors. The various asset management units actively search for investments that contribute to and benefit from the transition to a sustainable society. The goal is to make good investments from both financial and sustainability perspectives.

Based on the thematic sustainability analysis, during 2021 AP4 made new investments worth a total of approximately SEK 13.7 billion. These investments consist of new undertakings in the unlisted portfolio, such as in

sustainable infrastructure, including renewable energy. Within the fundamental, global equity management, AP4 has begun to build up a thematic portfolio of niche companies in a number of environment-related themes such as energy transition with focus on fossil-free mobility, hydrogen gas, carbon capture and recycling. AP4 has also made substantial new investments in smaller companies in the health sector, and has invested in green bonds issued by governments and in social bonds.

Breakdown of thematic sustainability investments 2021



Country analysis of sustainability risks

During 2021 AP4 conducted an analysis project focusing on sustainability risks at the country level. This may be relevant for management of fixed income investments, for example, which includes investments in government bonds issued by various countries. The aim of the project was to evaluate access to data and how a country-adapted ranking model for sustainability risks might be used to integrate these risks in the management of government bonds

and potentially also other asset classes.

The degree of sustainability risk at the country level was very closely correlated with the countries' income levels as well as credit ratings. AP4's investment universe for government bonds consists of a relatively narrow selection of countries based on their economies' level of development, credit rating and liquidity. At present these therefore also take into account sustainability risks at the country level.

Broadened mandate for green and social bonds

AP4 has invested in green bonds since 2013. During 2021 AP4 broadened its mandate to invest in green and social bonds so that it not only encompasses corporate bonds, but also government bonds and bonds issued by supranational institutions.

In recent years the market development for such bonds has been characterised by demand widely exceeding supply, and as a result, for example a green bond

issued by a given issuer has a lower expected yield but at the same time poorer liquidity and the same credit risk as a corresponding non-green bond issued by the same issuer. AP4's exposure to these bonds has therefore decreased in recent years.

A broadening of the mandate to more types of issuers has enabled AP4 to invest, for example, in green bonds issued by governments that issued their first such bonds in 2021.

Collaboration between the AP Funds

The AP Funds' (AP1, AP2, AP3, AP4 and AP7) Collaboration Council works to create better and more effective cooperation between the AP Funds in areas outside of the investment operations or in matters where competition between the AP Funds is not put at risk. The overarching focus is to identify areas in which there is distinct collaboration potential and where cooperation between the AP Funds could lead to greater cost efficiency for the Swedish pension system. One area in which the AP Funds collaborate on a regular basis is procurement and evaluation of products and services. During 2021, joint procurement was conducted of recruiting services, procurement services, healthcare insurance, and occupational pensions advice and administra-

tion. The AP Funds have also cooperated in the procurement of communication services for the Council on Ethics of the AP Funds. Cooperation has also been extended to the establishment of joint investment structures between certain of the AP Funds, such as in the company 4 to 1 Investments, and international tax matters. In the IT area, the AP Funds have collaborated on information security, where AP1, AP3 and AP4 have started a procurement process for a CISO (chief information security officer) to strengthen work on information security. AP3 and AP4 have together conducted a pre-study report and drawn up documentation ahead of procurement of a new portfolio management system.



About AP4

AP4 was established in 1974 to manage part of Sweden's public pension capital. Initially AP4 invested only in Swedish equities, but its investments have been gradually broadened over the years. Today AP4 invests in listed equities, fixed income assets and unlisted assets, both in Sweden and abroad.

AP4 and the pension system

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

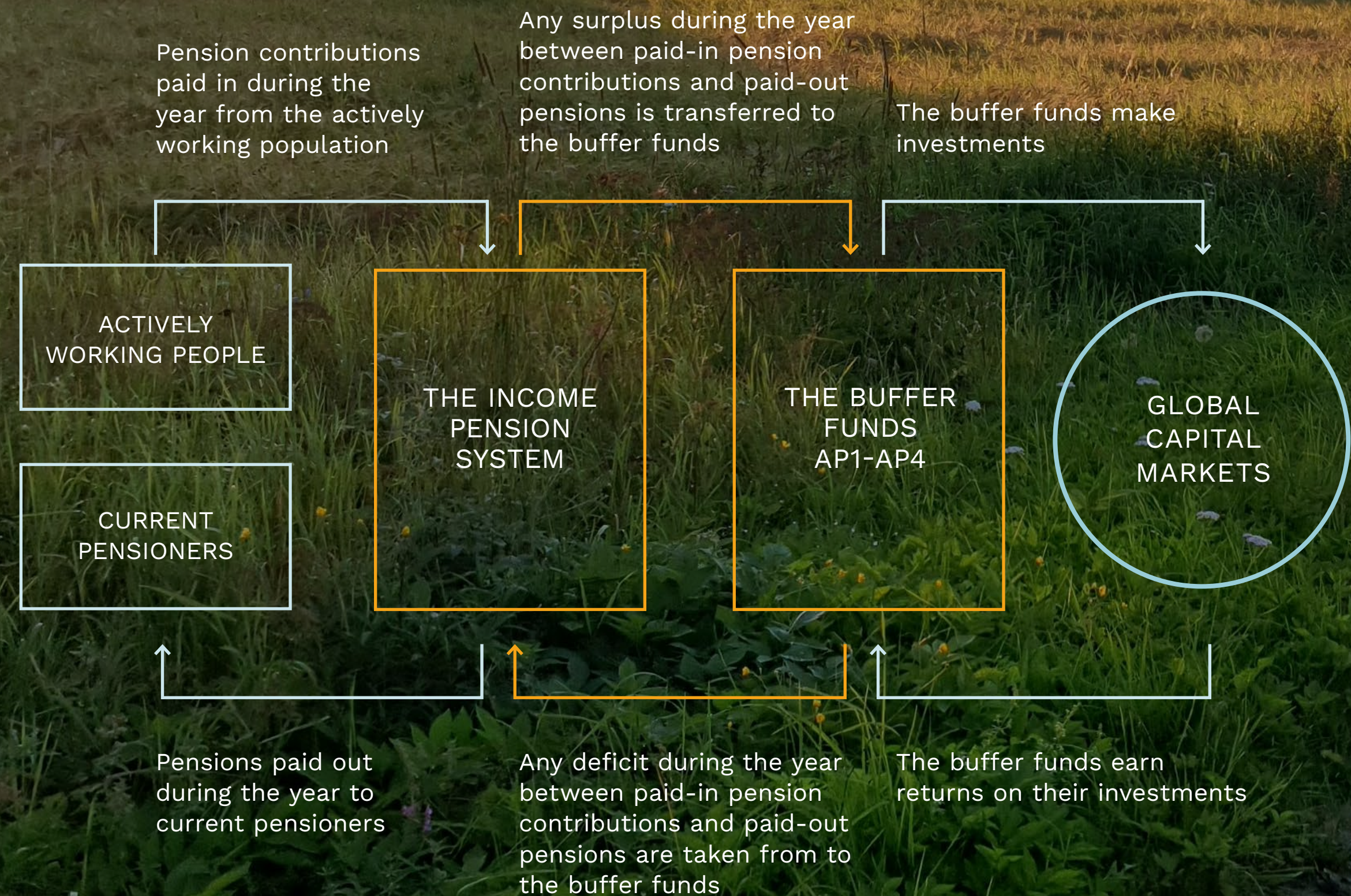
AP4 is a government agency whose operations are governed by the Swedish National Pension Funds Act (Lagen (2000:192) om allmänna pensionsfonder). From the start AP4 invested only in Swedish equities, but since 2001 it may also invest in Swedish as well as foreign equities and fixed income securities, and unlisted assets. Significant investments in unlisted assets include, for example, property companies and infrastructure companies.

Income pension and premium pension

Everyone who has worked in Sweden receives a national public pension, which is based on the

income they earned during their working life. The pension system is built upon two parts, income pension and premium pension, and every year 18.5% of pensionable income is allocated to the system for everyone who works. Payment is made in part through payroll taxes that are paid by employer and in part through the national public pension tax that all wage-earners pay. 16 percentage points go towards the person's income pension and 2.5 percentage points towards the premium pension. For every year worked, money is transferred to the system at the same time that each and everyone earns their own pension right in the income pension system, based on

THE INCOME PENSION SYSTEM





their income and any other taxable remuneration. These pension rights are indexed upward every year in accordance with the income index, which measures average income growth in Sweden.

With respect to premium pensions, pension savers themselves have a say in which securities funds their money is invested in. If a pension saver does not make an active choice, their capital is instead managed by AP7, which today manages a considerable share of the total premium pension capital. In addition, outside of the state pension system, many people also have occupational pensions which are paid for by their employers, or personal pension savings.

AP4 is a buffer fund

Income pension is system where the pension contributions paid by people who have worked during the year are used to pay pensions to current pensioners. If payments to the system during a given year are less than what is needed to pay out pensions, a deficit arises. In such case, the AP Funds' managed capital is used as a buffer to cover the deficit, and conversely,

if payments in to the system are greater than what is needed to pay out, the money goes to the AP Funds for management. The system is designed to handle this so that no generation receives a higher pension at the expense of another. If the pension system for some reason comes into an imbalance, i.e., its obligations become greater than the assets on hand, a balancing mechanism is activated. Through this balancing, income pensions are upwardly indexed at a slower pace until the pension system's assets are once again as large as its obligations, something that happened for example following the financial crisis in 2008.

The AP Funds and the future

Since 2009 the four AP Funds together have paid a net total of SEK 291 billion to the pension system. The AP Funds have been net payers mainly because the number of people born each year during the 1940s was so large that today we have more pensioners in Sweden than previously. This also means that the AP Funds will be net payers for an estimated another some 20 years, before the inflow to the buffer funds once again begins rising.

Strengthened pension system – asset management since 1974

Over time, AP4's asset management has made large contributions to the national pension system.

When AP4 was established in 1974 it was with the assignment to invest in Swedish equities. This took place at a time when equity ownership was not as commonplace as it is today, neither among institutional investors such as pension funds nor among private persons.

The decision to establish an AP Fund to invest in Swedish equities was questioned at the time, but today it has proved to be a wise decision. AP4 has generated an accumulated surplus of SEK 576 billion in support of the pension system, and at the same time AP4 has been a source of equity

capital not least for listed Swedish companies and a contributing force in the work on establishing rules for ethics and conduct in the Swedish stock market.

AP4 has transferred a net total of SEK 48 billion to the pension system since 1974. At the same time, through the growth in value that has taken place, AP4's fund capital has grown and amounted to SEK 527.6 billion at year-end 2021. A favourable return on the fund capital contributes to a strengthening of the pension system and allows promised pensions to be paid out.

The buffer funds' combined share of assets in the income pension system have grown from 10% at the start in 2001 to just under 18% at year-end 2021.

576

SEK billion in accumulated surplus since 1974

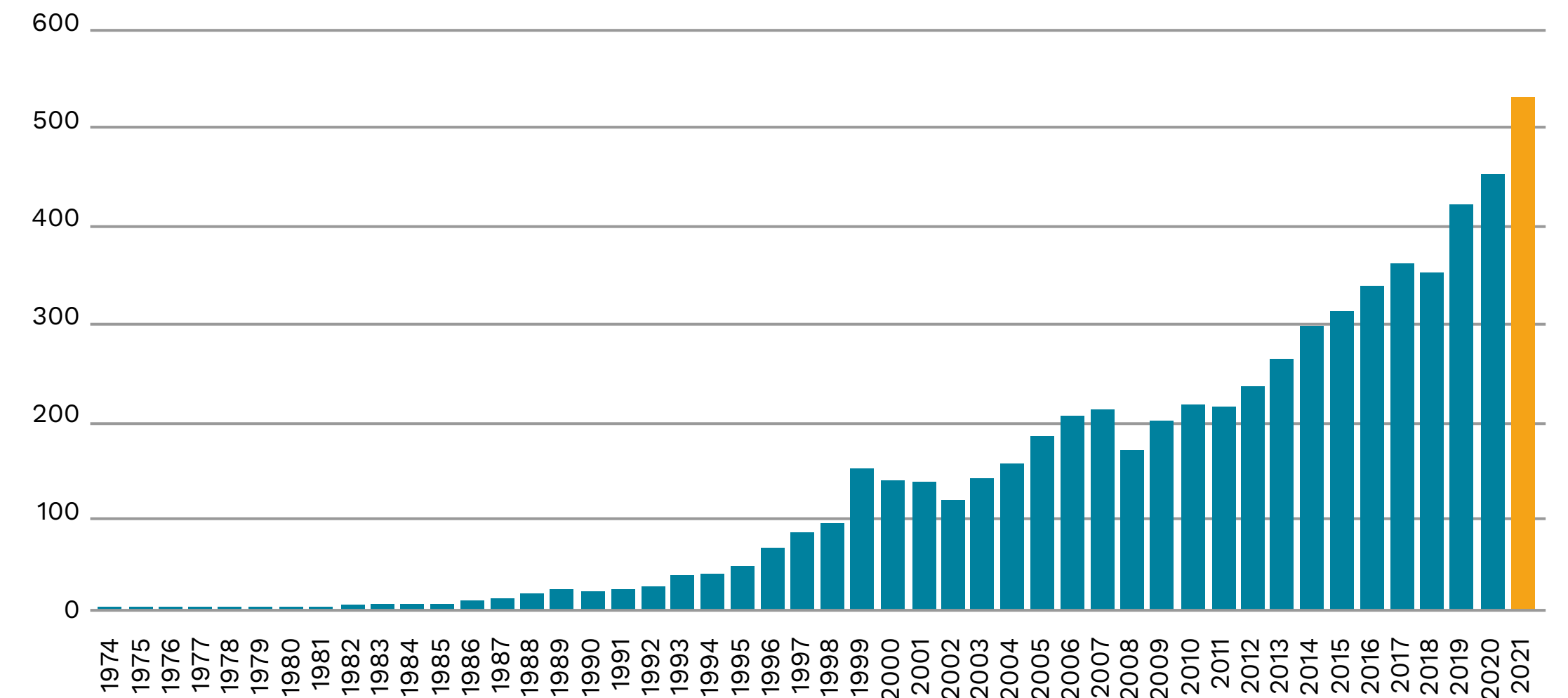
48

SEK billion in net payments from AP4 to the pension system since 1974

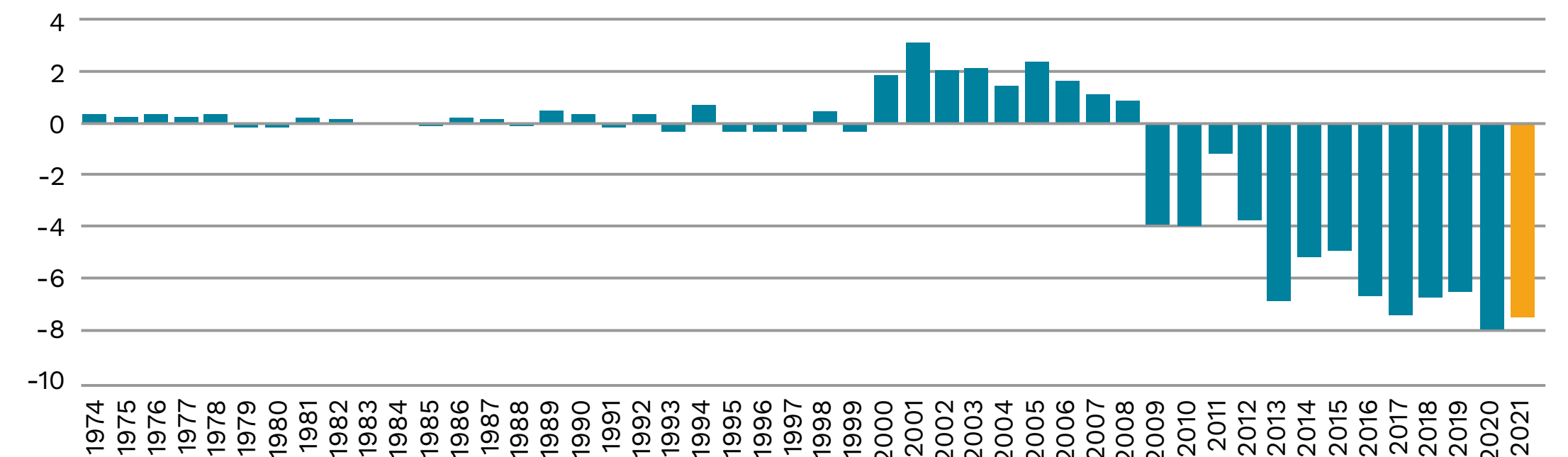
13

% average annual return after costs since 1974

Closing fund capital, SEK billion



Yearly net flows from the pension system (SEK billion)



AP4's mission in a complex world

AP4 is governed by the Swedish National Pension Funds Act (the AP Funds Act), and its mission includes managing the fund assets so that it will be to the greatest possible benefit for the income pension system. AP4 shall also manage the capital in an exemplary way through responsible investments and responsible ownership.

The government appoints AP4's board members, and the Ministry of Finance continuously monitors and evaluates AP4's operations. AP4 is to independently formulate goals and strategies, and by law AP4's board and operations may not be governed directly by government directives or by business policy or economic policy interests.

AP4's investment operations are based on the pension system's needs and are conducted with the long-term goal to generate the highest possible return with balanced risk. This therefore requires understanding and managing sustainability risks and opportunities in the portfolio, such as climate change. AP4's employees contribute with a will and ability to execute this mission in a culture that promotes learning and professionalism in relations with cooperation partners and other interests. In this way, AP4 contributes to financial security for today's and tomorrow's pensioners in Sweden at the same time that AP4 supports well-managed companies in their sustainability transition.

CONTRIBUTIONS

CAPITAL

AP4 makes investments in global capital markets

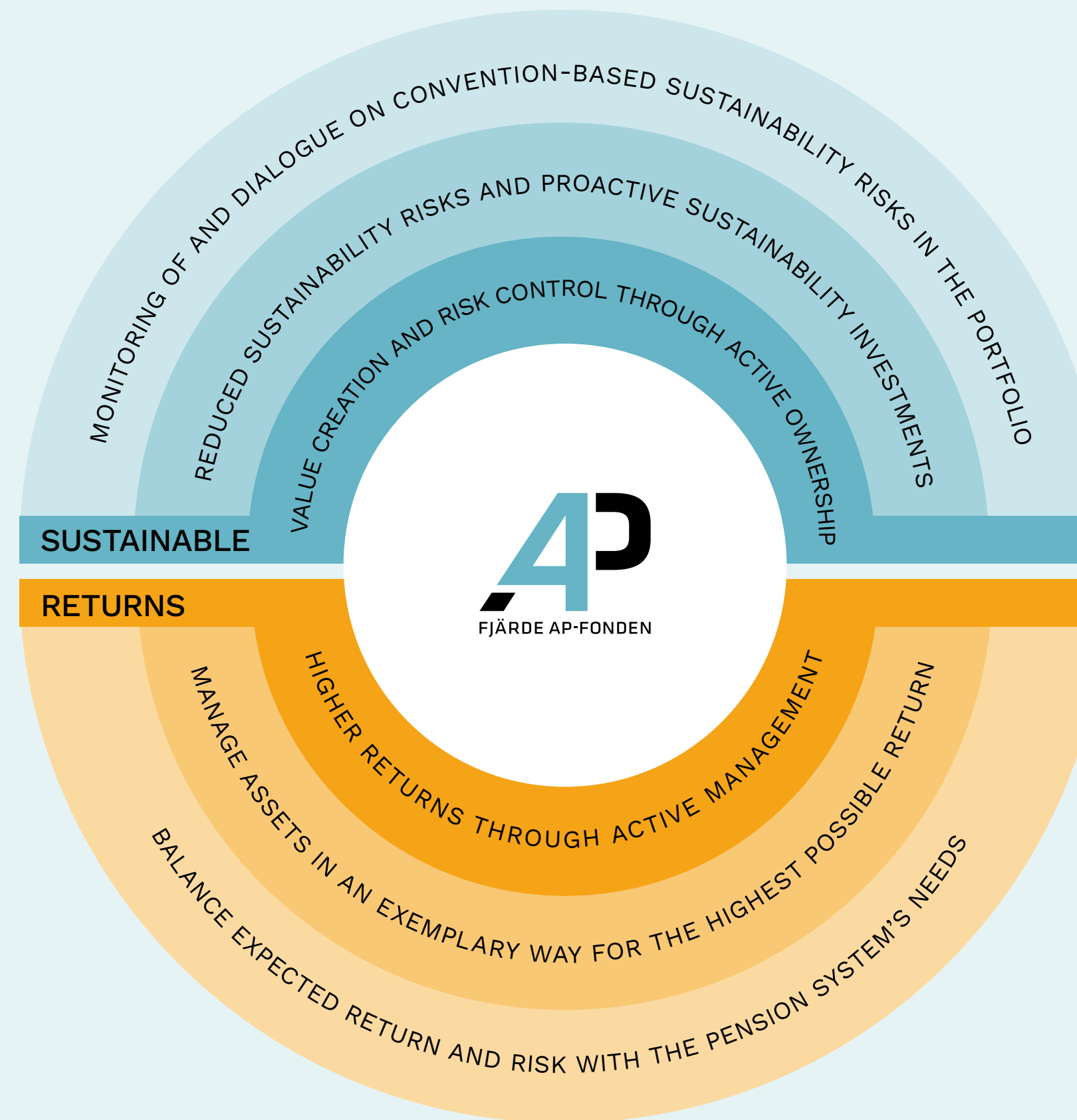
EMPLOYEES

AP4's employees contribute knowledge and experience

RELATIONS

AP4's business partner provide expertise and resources

ACTIVITIES



CONTRIBUTIONS

SUSTAINABLE INVESTMENTS

- Contribute to well-managed companies
- Make investments that contribute to and benefit from the sustainability transition

FINANCIAL SECURITY FOR TODAY'S AND TOMORROW'S PENSIONERS

- Contribute to the pension system's strength
- Payments to the pension system as needed
- Reduce risk for reduced pensions

INFLUENCE AND EXPECTATIONS FROM OUR OPERATING ENVIRONMENT

- Laws govern the mission and operations
- Stakeholders

Stakeholder dialogue and materiality analysis

Engaging in a dialogue with the AP Funds' stakeholders provides guidance to the Funds in their sustainability work and clearer picture of stakeholders' views of the AP Funds' mission and operations in relation to sustainability and returns. Every three years the AP Funds conduct a stakeholder dialogue and materiality analysis. In autumn 2020, under the circumstances that prevailed during the global pandemic, this dialogue was conducted in the form of a targeted web-based survey that was sent to representatives of AP4's various stakeholder groups. These consist mainly of: principals (the so-called Pensions Group, the finance and social insurance committees, and the Ministry of Finance), portfolio companies, vendors, industry peers, beneficiaries, society in general (labour market parties, universities and the Swedish Pensions Agency), interest organisations and employees. Overall the 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 generate 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 further develop their management and communication of sustainability-related risks and opportunities in their investments. On this point the survey highlighted the importance that the AP Funds advocate for the climate transition in Sweden and internationally through cooperation with other actors. By following up the results with selected stakeholder groups, the AP Funds gain a better understanding of the stakeholder groups' views.

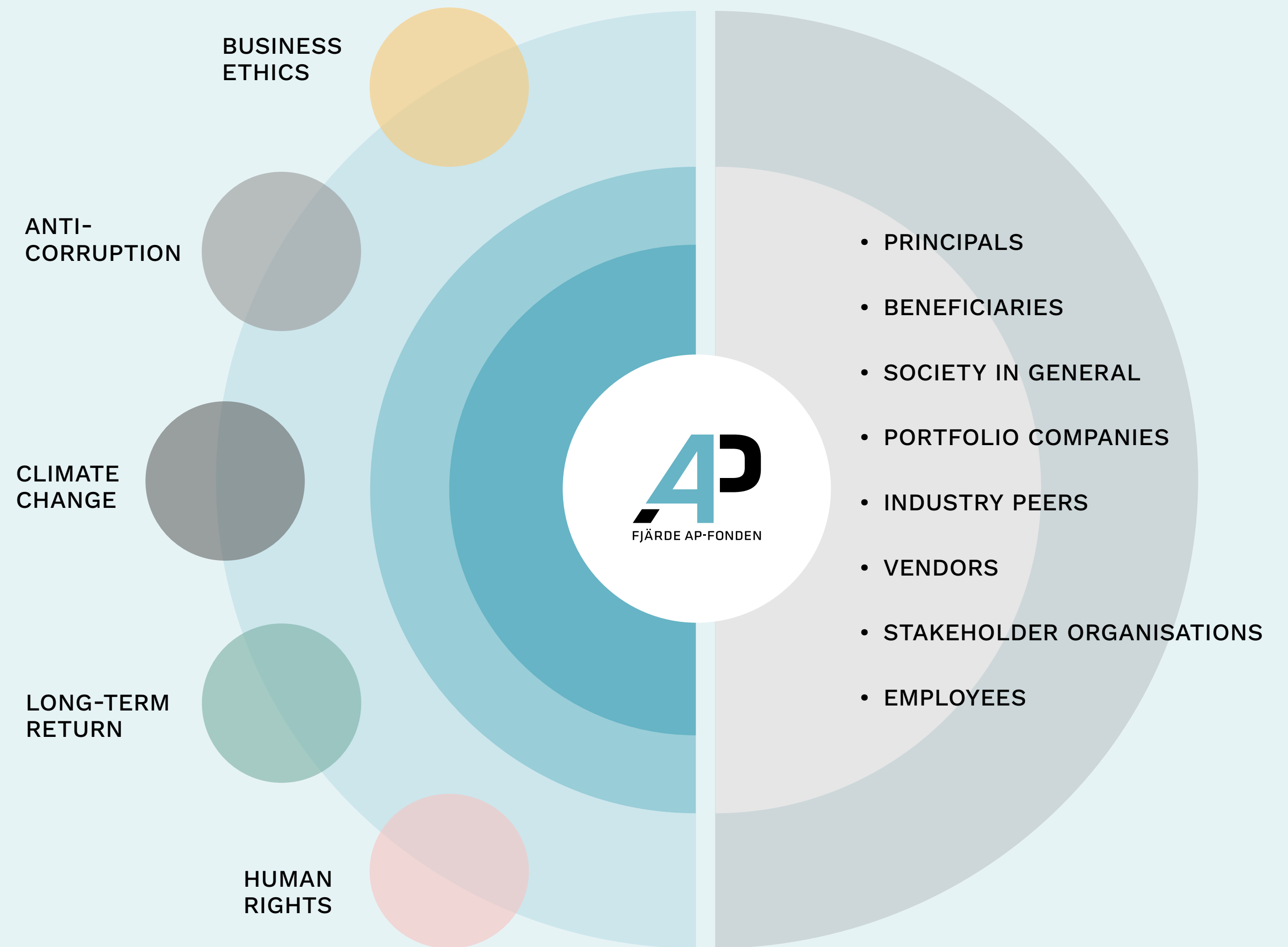
Prioritised sustainability areas

The stakeholders ranked 12 selected sustainability areas based on how important they believe the respective areas are for the AP Funds to take into account in their asset management and in their corporate governance work with respect to portfolio companies. Five areas were considered to be essentially of equal importance for the stakeholders: business ethics, anti-corruption, climate change, long-term return and human rights.

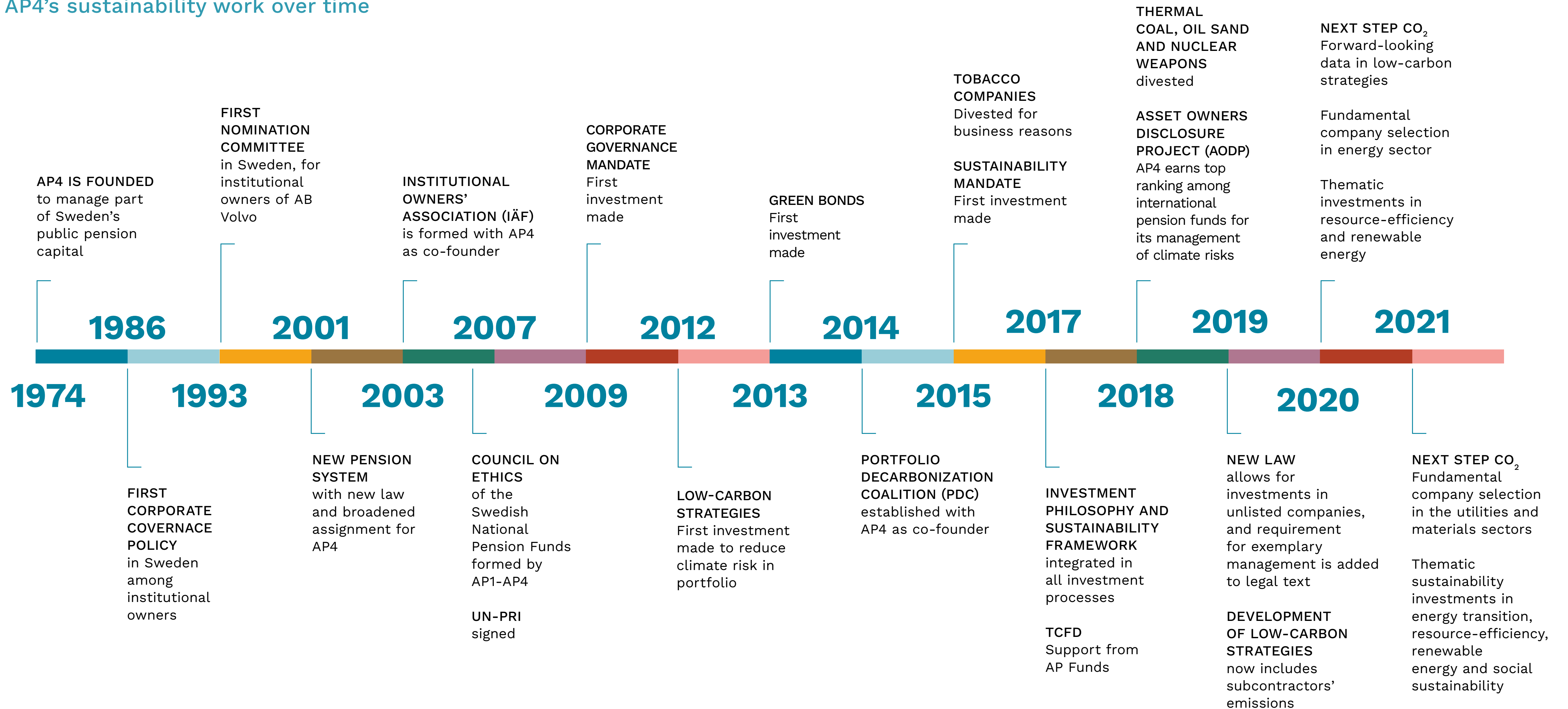
These five areas were followed, in declining order, by: the environment, transparency in companies, working conditions, sustainable supply chain, biodiversity, diversity and equality, and information security.

SUSTAINABILITY AREAS

STAKEHOLDERS



AP4's sustainability work over time





Strategy and operations

AP4's asset management structure takes advantage of the opportunity to invest with several investment horizons of up to 40 years. In this long-term perspective it is important that investments are sustainable in order to also be financially successful.

Asset management structure

The goal of AP4’s asset management is to achieve a long-term high return that contributes to the pension system’s strength and lowers the risk for reduced pensions. One precondition for AP4 to conduct long-term successful asset management is that sustainability factors are integrated in the asset management.

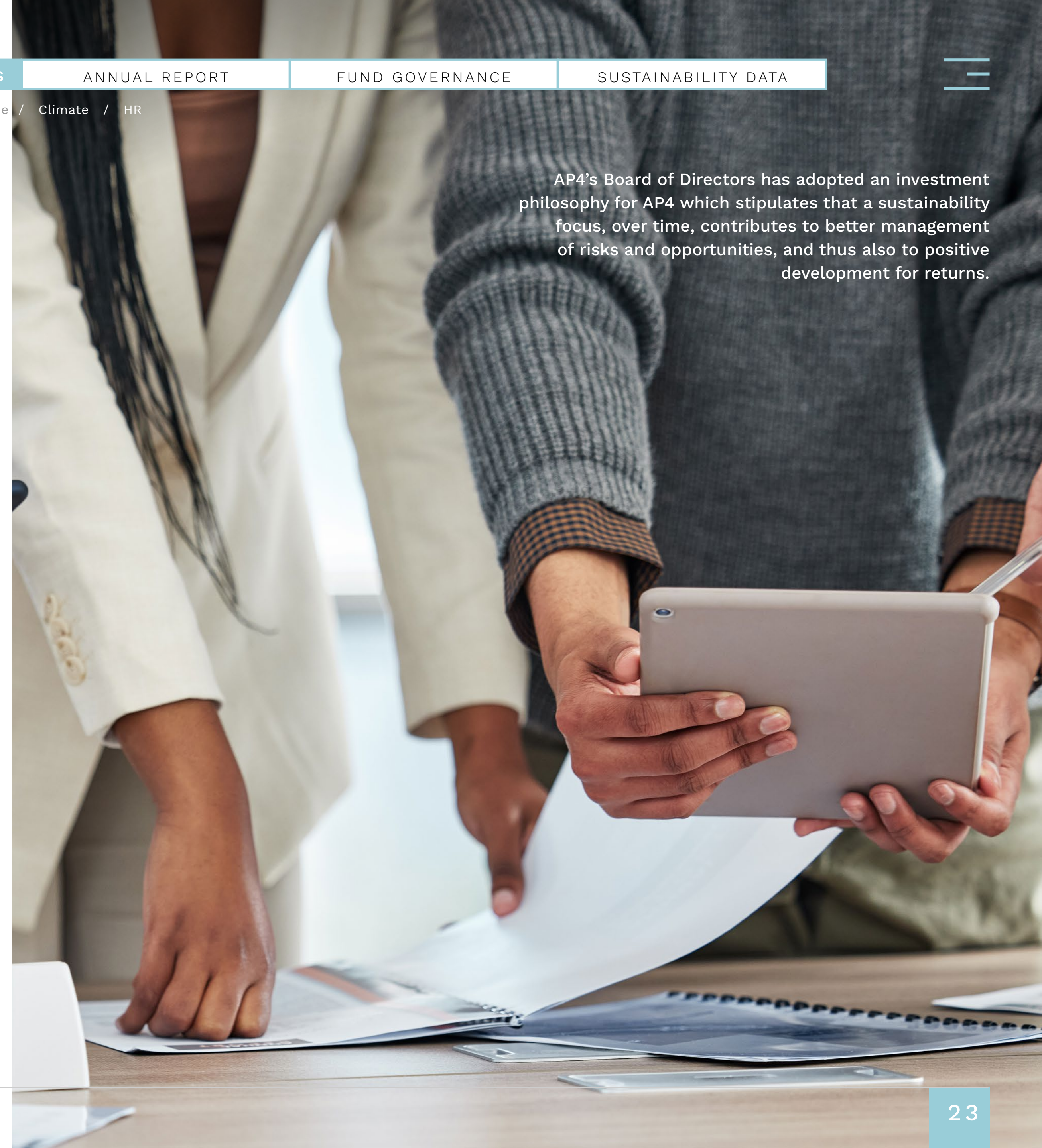
AP4’s asset management is grounded in the AP Funds Act

AP4’s operations are governed by the AP Funds Act, which is the law that stipulates, among other things, that AP4’s mission is to manage the fund assets in such a way that they generate a long-term high return for the pension system. The law also stipulates that asset management shall be conducted in an exemplary way through responsible investments and responsible ownership. In addition, particular emphasis is put on ensuring that AP4 contributes to sustainable development without compromising on the overarching return objective.

Investment philosophy dictates overarching focus

AP4’s board has adopted an investment philosophy that stipulates three essential distinguishing features for AP4, i.e., preconditions that to some extent distinguish AP4 and create opportunities for successful asset management. These are the ability to act long-term, a large degree of freedom to design the asset management in the best way within the framework of the AP Funds Act, and a portfolio size that enables cost-efficient asset management without limiting the investment opportunities. These characteristics

AP4’s Board of Directors has adopted an investment philosophy for AP4 which stipulates that a sustainability focus, over time, contributes to better management of risks and opportunities, and thus also to positive development for returns.



AP4's investment philosophy

THE THREE DISTINGUISHING FEATURES OF AP4'S ASSET MANAGEMENT PHILOSOPHY

The mandate to have an investment philosophy that is longer than for many other investors entails an opportunity to act long-term and think differently than other investors when it is judged to be favourable over the long term.

Large degree of freedom – within the framework of AP4's statutory investment rules – to formulate the strategy and the portfolio structure, and choose investments that create opportunities to benefit from AP4's comparative strengths and diversification opportunities, and proactively adapt the portfolio when the market conditions change.

Ideal size of AP4's capital – neither too small nor too large – provides economies of scale that enable cost efficiency without limiting investment opportunities.

OPPORTUNITY TO ACT LONG-TERM

LARGE DEGREE OF FREEDOM TO FORMULATE THE ASSET MANAGEMENT

IDEAL PORTFOLIO SIZE

WELL-BALANCED RISK-TAKING

Disciplined and well-balanced risk-taking that can be monitored is necessary for generating returns.

INEFFICIENT MARKETS

The financial markets are not always efficient, which creates opportunities to create value added in the asset management through a long-term approach and active management.

DIVERSIFICATION

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

SUSTAINABILITY

Over time, integrating sustainability aspects in the asset management contributes to better management of risks and opportunities and thus also to returns.

COMPETENT ORGANISATION

Portfolio management is a knowledge-intensive operation in which competent employees are an essential success factor.

STRUCTURED PROCESSES

A structured and transparent investment process is a prerequisite for successful asset management.

INVESTMENT BELIEFS

are complemented with so-called investment beliefs, which clarify how AP4 acts to create value added in the asset management. The investment beliefs pertain to well-balanced risk-taking, inefficient markets, diversification, sustainability, competent organisation and structured processes.

Asset management structure with three time horizons

AP4's asset management structure takes advantage of the opportunity to invest over several time horizons: the pension system's needs for the long term over 40 years, a medium-term perspective that takes macroeconomic and market conditions over a 5-15 year horizon into account, and a more short-term perspective for individual investment assessments of up to 10 years. For each time horizon the Board stipulates goals and investment guidelines.

Long-term real return target

AP4 makes assessments about the pension system's long-term need for return levels and its need for payments from the AP Funds to cover any deficits. These assessments are made with a time perspective of up to 40 years. The analysis of the pension system is

combined with a very long-term assessment of expected returns for various asset classes. This culminates in a long-term return target, which is currently a 3.5% annual real rate of return, and decisions on suitable ranges for the portion of equities in the portfolio, the fixed income portfolio's average duration, and currency exposure.

Medium-term real return target

In a medium-term perspective, with a 5-15 year interval, it is possible in greater detail to make assessments of macroeconomic parameters such as growth and inflation. It is also possible to make a market assessment that takes into account valuation levels, for example. These assessments form the foundation of a more detailed analysis of expected returns for various asset classes. This leads to decisions about the Dynamic Normal Portfolio (DNP), which is the benchmark portfolio set by the Board comprising several indexes, and a medium-term return target that is currently a 3% annual real rate of return.

Day-to-day asset management with active return target

The operative asset management thereafter comes into play, which entails allocation decisions

between various asset classes and a broadening to assets that are not represented in the DNP. Finally, investment decisions are made regarding individual stocks, bonds and other financial instruments within the asset classes and asset management mandate. These decisions are made with time horizons of up to 10 years. The goal of asset management is to outperform the return of the DNP by 1% with a 5-year evaluation horizon. The asset management is governed by a risk mandate of a maximum 5% active risk in relation to the DNP.

The Board governs and follows up

AP4's board of directors has adopted a number of governance documents that regulate AP4's asset management structure, including sustainability work. These governance documents are reviewed every year and are revised when necessary. It is up to the Board to review and adopt AP4's long-term strategy every year, as well as the plans that are set for each financial year.

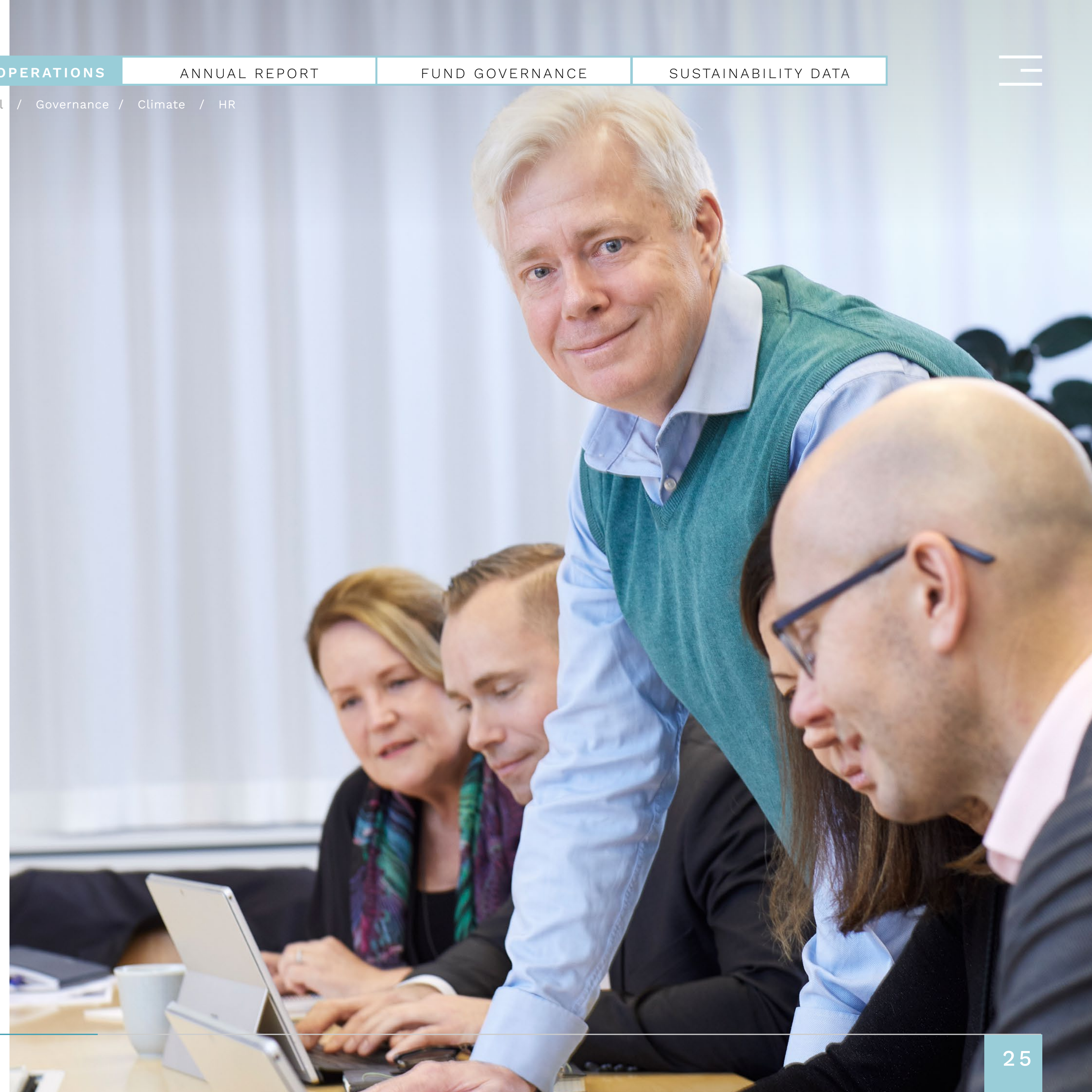
AP4's CEO is responsible, together with the heads of the

respective asset management units, for the asset management work and for ensuring that sustainability work is integrated in AP4's investments processes. Asset management is organised in four units:

- Fundamental Equities
- Fixed Income & FX
- Alternative Investments
- Strategic Allocation & Quantitative Analysis

Asset management per asset class is described on pages 28-29.

The Board of Directors has assigned AP4's CEO with the task of assessing the sustainability issues that arise in the investment operations. The CEO reports on a regular basis to the Board about how such issues are being dealt with, about strategic development and goals, and about the activity plans that will make it possible to achieve the goals. The Board prioritises sustainability-related issues that have bearing on the asset management strategies, and such issues are addressed at essentially every board meeting.



To design a portfolio that in the best way weighs together the expected return and risk with the pension system's needs, AP4 works systematically and in several steps. This means that financial and sustainability-related analyses are conducted with several different time horizons, which are then woven together into decision-making documentation in the portfolio's design.

Asset management structure based on the pension system's needs

	The pension system's long-term needs	AP4's benchmark portfolio	Allocation	Management of delegated mandate
DESCRIPTION	Assessment of the pension system's long-term need for returns and net payments from the AP Funds, structural conditions for macroeconomic growth and expected long-term return.	Medium-term analysis that in greater details takes into account the prevailing and expected macroeconomic situation and dynamic as well as market assessment based on this shorter perspective.	Strategic and tactical allocation decisions between various asset classes, and managing continuing operations between asset classes and currency exposure in response to market movements.	Based on the delegated asset management mandate, continuously make investments that are judged to meet AP4's requirement for long-term sustainable return.
ANALYSIS HORIZON	Up to 40 years	5-15 years	Up to 10 years	Up to 10 years
FREQUENCY	Conducted every three years	Yearly	Quarterly, monthly or as needed	Continuously
RESPONSIBILITY	Board decides	Board decides	CEO and CEO-delegated mandate	CEO and CEO-delegated mandate
RESULT	<ul style="list-style-type: none"> The combination of expected return and risk that best contributes to a strengthening of the pension system without one generation benefiting at the expense of another 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 the fixed income portfolio's average duration. 	<ul style="list-style-type: none"> Decisions on the Dynamic Normal Portfolio (DNP), a benchmark portfolio comprising market indexes. Medium-term real return target of 3% per year measured over 10 years. Active return target in relation to the DNP of 1% per year measured over 5 years. Active risk scope (tracking error) for the operative portfolio to deviate from the DNP by a maximum of 5%. 	<ul style="list-style-type: none"> Broadening of the DNP to other asset sub-classes, such as credits and unlisted assets. Changed asset allocation in relation to the DNP. 	<ul style="list-style-type: none"> Operative management of delegated asset management mandate. Individual investment decisions in e.g., equities, bonds and unlisted investments.

AP4 works according to the definition of sustainability as societal development that meets the needs of people today without jeopardising future generations' opportunities to meet their needs, and that this is a precondition for maintaining favourable and balanced economic development over time.

Climate scenario analyses and thematic sustainability analyses of potential investment opportunities affect both the overall asset allocation and individual asset management mandates. By reducing sustainability risks, investing in strong sustainability trends and influencing owners, AP4 integrates sustainability in the individual investment processes.

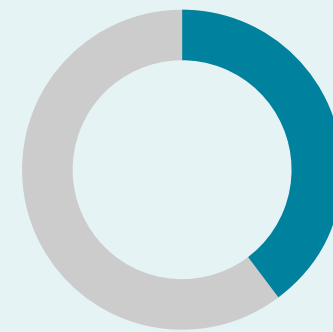

Asset management structure that integrates sustainability

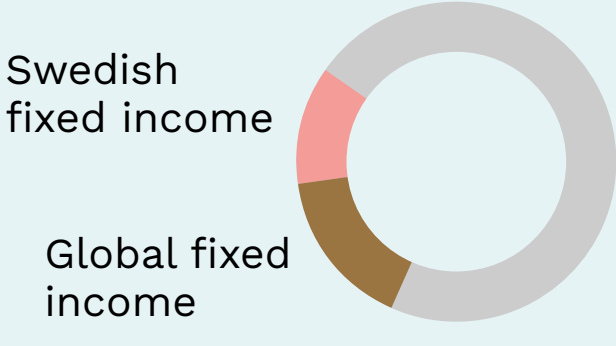
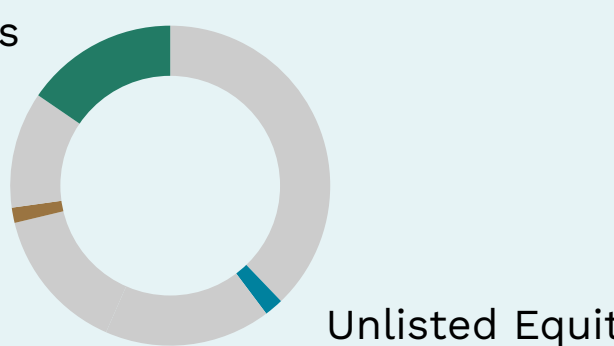
	Climate scenario analysis	Thematic sustainability analysis	Reduce risks	Invest in trends	Influence as investor
DESCRIPTION	Analysis of the climate transition and its potential impact on supply and demand, and by extension also on expected growth and inflation. The starting premise for AP4's climate scenario 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.	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 the 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.
ANALYSIS HORIZON	5-15 years	5-15 years	Up to 10 years	Up to 10 years	Up to 10 years
FREQUENCY	Yearly	Yearly	Continuously	Continuously	Continuously
RESPONSIBILITY	CEO and Board of Directors where the DNP is involved	CEO and Board of Directors where the DNP is involved	CEO and CEO-delegated mandate	CEO and CEO-delegated mandate	CEO and CEO-delegated mandate
RESULT	<ul style="list-style-type: none"> Used in macroeconomic analysis with up to a 10-year perspective to assess political and technological changes, growth and inflation as well as thematic sustainability investments. 	<ul style="list-style-type: none"> Leads to AP4's view on influence and opportunities in various areas, parts of value chains and sectors. Serves as support in individual investments to reduce risks and invest in sustainability trends. 	<ul style="list-style-type: none"> Reduced exposure to e.g., climate risk in the equity and credit portfolios. Exclusion decisions to not have ownership in companies that violate international conventions that Sweden has signed. 	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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 collaborates with AP1, AP2 and AP3 through the Council on Ethics as well as with other investors in various sustainability undertakings.

Asset management per asset class

AP4's management of the asset classes in the benchmark portfolio (DNP) is handled by four asset management units: Strategic Allocation & Quantitative Analysis, Fundamental Equities, Fixed Income & FX, and Alternative Investments.

Portfolio responsibility and analysis duties are delegated among the various asset management units. Asset management strategies are described, and a summary of returns and sustainability work per asset management unit are shown in the respective columns.

Asset management unit	Strategic Allocation & Quantitative Analysis	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, broadening of the portfolio to more asset classes, 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.
SHARE OF PORTFOLIO	 <p>Global Equities</p>	 <p>Swedish Equities</p>
ASSET MANAGEMENT STRATEGY	Global equities management consists in part of cost-efficient and quantitative-based equities management aimed at efficiently creating index-linked exposure complemented by fundamental company selection in resource-intensive sectors and investments based on the sustainability theme. In addition, active management is conducted through 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 2021 was 21.4% (13.5%). The global equities management's excess return was 1.2 percentage points (1.3) in 2021 and an average of 1.1 percentage points (0.8) per year over a five-year evaluation horizon.	The return for Swedish Equities in 2021 was 35.7% (30.2%). For several years, Swedish equities management has outperformed the index with favourable risk-adjusted returns, but for 2021 the active return was negative, at -3.7 percentage points (15.3). Over a five-year evaluation horizon, the average excess return was 4.2 percentage points (5.1) per year.
INTEGRATION OF SUSTAINABILITY IN ASSET MANAGEMENT	<ul style="list-style-type: none"> Responsible for climate scenario analysis and 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 Fundamental company selection in resource-intensive sectors 	<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 Serves on nomination committees to ensure that the companies have the best possible boards. Diversity is an important dimension in this work As a consequence of the investment philosophy and taking sustainability risks into account, the portfolio's CO2 intensity is very low
DEVELOPMENT OF SUSTAINABILITY IN ASSET MANAGEMENT IN 2021	<ul style="list-style-type: none"> Development of the portfolio with thematic sustainability investments Analysed the utilities and materials sectors, and divested companies whose goals and plans are considered to be not aligned with the Paris Agreement Within the scope of low-carbon strategies, restructured fund investments in emerging markets to achieve a small carbon footprint Conducted analyses of risks related to human rights in various sectors and to sustainability risks in various countries 	<ul style="list-style-type: none"> Applied analysis tools to assess how companies handle sustainability aspects in connection with company dialogues Made new investments in smaller companies in the health sector

Asset management unit	Fixed Income & FX	Alternative Investments
AREA OF RESPONSIBILITY	Active management of the Global and Swedish Fixed Income Assets 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		
ASSET MANAGEMENT STRATEGY	The fixed income portfolio is liquid and creditworthy. Bonds with the highest credit rating, AAA ¹ accounted for slightly more than 59% (63%) of AP4's holdings of fixed income securities. Corporate bonds accounted for 43% (46%) 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 investments in joint-venture companies and funds focused on real estate and infrastructure investments. In Unlisted Equities and Unlisted Credits, AP4 invests mainly with external asset managers and through joint-venture companies.
RETURN	The return for the year was -0.5% (4.0%) for AP4's global fixed income investments and -0.1% (1.5%) for Swedish fixed income investments. The excess return for fixed income investments in 2021 was 1.1 percentage points (0.7) and an average of 0.7 percentage points (0.2) per year over a five-year evaluation horizon. The return contribution from AP4's open currency exposure was 1.8 percentage points (-2.1) in 2021. Over a five-year period AP4's open currency exposure contributed an average of 0.3 percentage points (0.4) per year.	Real Assets generated a return of 24.1% (5.0%) in 2021, which is 18.3 percentage points (1.7) 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. Over a five-year period the portfolio generated an average annual return of 17.8% (18.0%). Unlisted Credits generated a return of 6.2% (4.8%) in 2021, and over a five-year period the average annual return was 4.6% (3.3%). Unlisted Equities generated a return of 45.0% (15.5%) in 2021, and over a five-year period the average annual return was 20.7% (12.1%).
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 joint-venture 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 2021	<ul style="list-style-type: none"> Developed an investment mandate for green bonds in favour of green government bonds and supranational issuers. This resulted in an increase in investments in green government bonds in 2021. 	<ul style="list-style-type: none"> Carried out thematic investments coupled to the Climate & Environment focus area Engaged in a dialogue with AP4's property companies and external asset managers in real assets regarding climate impact and climate strategy Gathered carbon emissions data for unlisted infrastructure investments, which were begun in 2021. Measurement of unlisted property companies' carbon emissions was begun in 2019 Developed sustainability criteria in agreements with external fund managers

¹ The credit risk classification presented here (rating) refers to an internal standard. The assessment in this standard for 2021 is based on the rating issued by the selected rating agency (Moody's Analytics UK Ltd).

The Council on Ethics of the AP Funds works for change and transparency

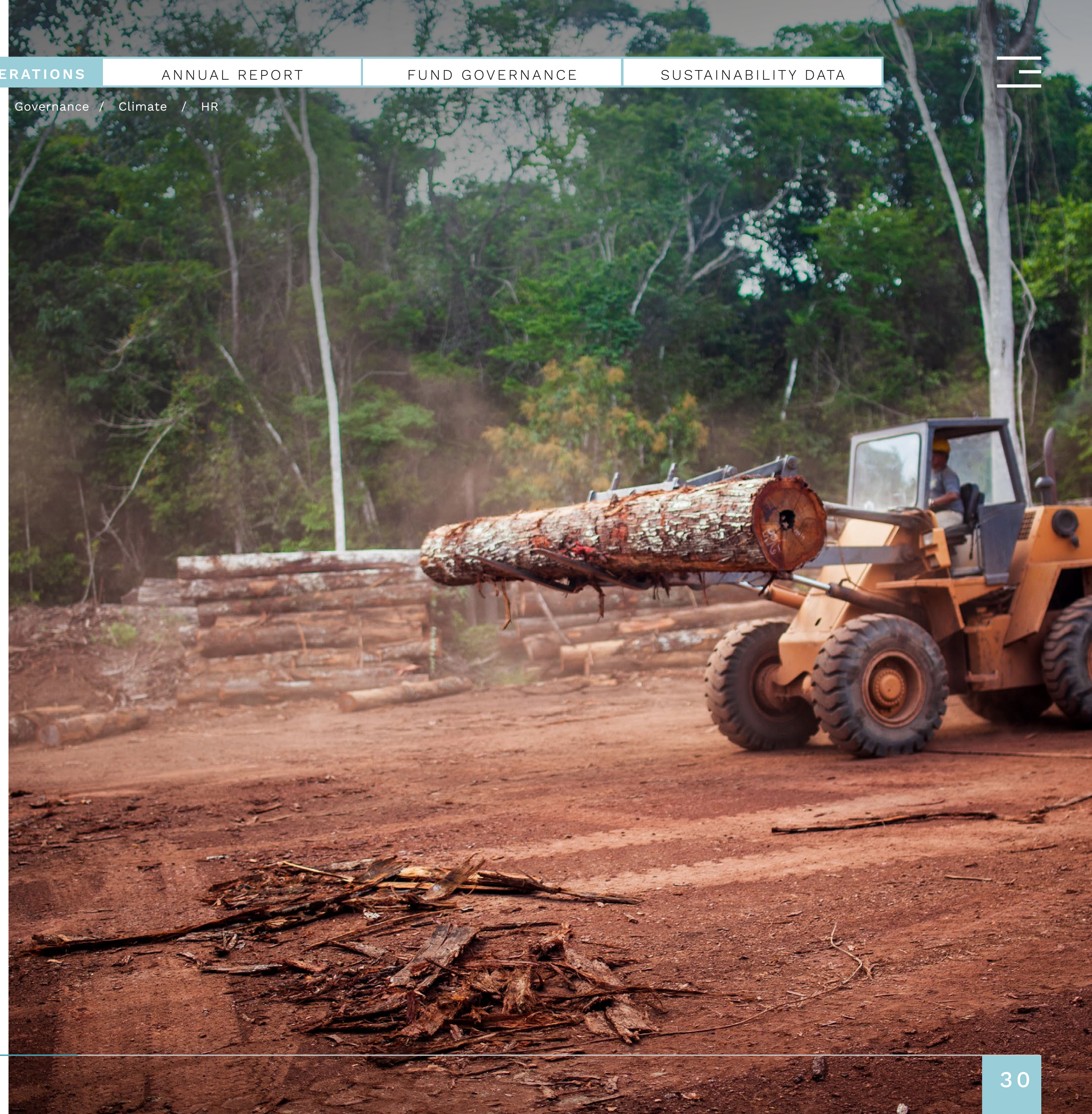
The Council on Ethics of the AP Funds (the Council on Ethics) is a collaboration between AP1-AP4 aimed at using their joint strength to influence companies to strive for sustainable value creation and transparent reporting.

Through dialogue and talks, the Council on Ethics engages itself to influence companies and sectors both proactively and in response to incidents. The Council on Ethics' collaboration revolves around the companies included in the AP Funds' respective portfolios of listed companies, mainly the foreign holdings.

The Council on Ethics works both proactively with companies to mitigate the risk of incidents taking place and reactively in cases where it is believed that a violation

of an international convention has taken place. During 2021 the Council on Ethics was involved in eight preventive projects in which progress was demonstrated. At year-end, active engagements were being conducted with 85 companies in all parts of the world.

The Council on Ethics also cooperates with other international investors with similar sustainability agendas. This provides an additional, greater opportunity to advocate for positive change and greater transparency in reporting.





Screening of the AP Funds' holdings and reactive company dialogues

Screening of the AP Funds' holdings

	2021	2020	2019
Number of companies in the AP Funds' portfolios	3,168	2,430	3,557
- Of which, confirmed violation	23	22	29
- Of which, at risk for violation	89	72	91
- Of which, with no remarks from screening	3,056	2,336	3,437

Company dialogues

	2021 ¹
Number of active dialogues	85
Number of milestones achieved during the year in dialogues	77
Number of new dialogues begun	5
Number of dialogues concluded with goals achieved	12
Number of companies recommended for exclusion	0

¹ Key ratios for the dialogues are being reported for the first time, which is why data is presented only for 2021.

Reactive work influences companies to act and remedy

The AP Funds have their listed shareholdings screened twice a year to ensure that no violations of international conventions have taken place. At year-end 2021, the Council on Ethics' screening of

nearly 3,200 holdings identified slightly more than 100 companies with a confirmed violation of an international convention or with a suspected risk for a violation. Most companies thus passed the screening without remarks. The Council on Ethics engages in

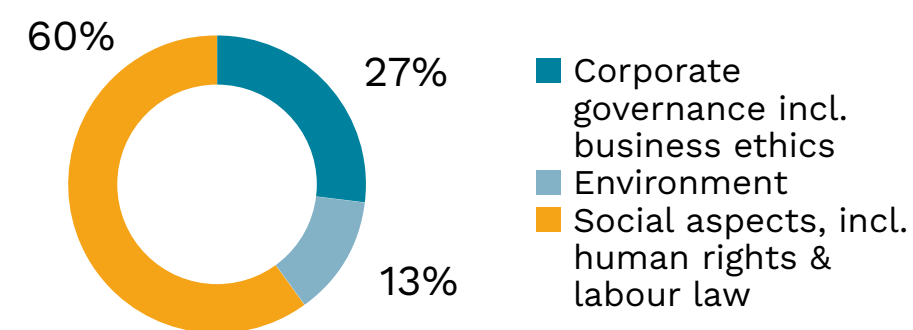
dialogue with companies in cases of confirmed violations or where there is a risk of a violation. At year-end this summed up to 85 active dialogues. A total of 3,056 companies passed the screening without remarks.

Engagements

Engaging a company in dialogue is the Council on Ethics' main tool for influencing and making demands for improvement. The Council on Ethics' dialogues are focused on encouraging companies to improve their policies, guidelines, implementation and follow-up of such, and to report on this work transparently.

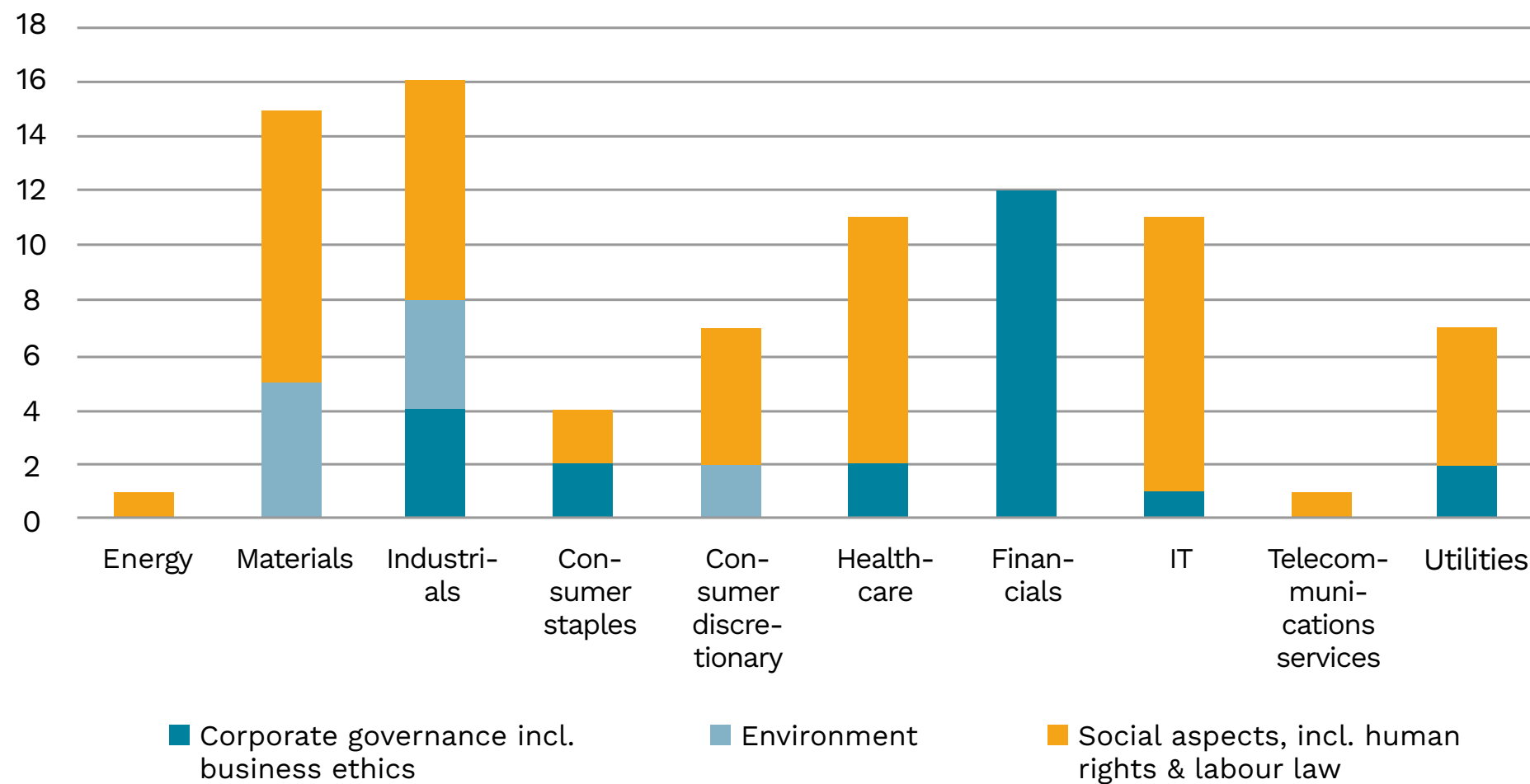
An engagement with a company is often conducted over several years, which is often the amount of time needed for a company to address a problem and ensure that no new, similar incidents will take place. If a dialogue does not lead to the results that the Council on Ethics considers to be reasonable within four years, the Council on Ethics can recommend that the AP Funds exclude the company. However, this is viewed as a last resort, and the Council on Ethics views such an exclusion as a failure since there is a risk that the unsatisfactory conditions in question would likely continue. Each year the Council on Ethics follows up companies that have been excluded, and if the conditions have been remedied, the Council on Ethics can recommend that the AP Funds once again include the company in their investment considerations.

Engagements broken down by sustainability area

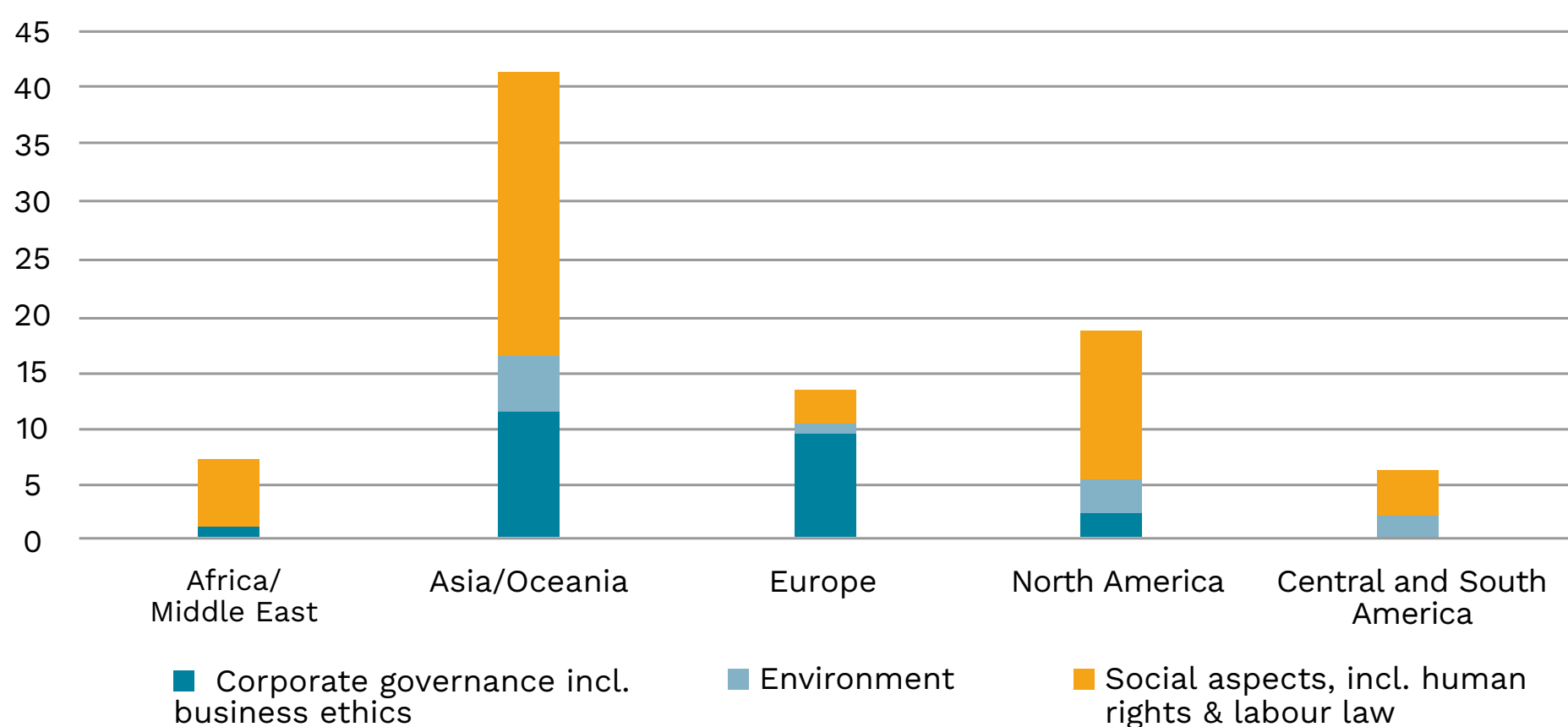


Reactive company dialogues broken down by region and sector

Dialogues per sector



Dialogues per region



Breakdown of the Council on Ethics' reactive company dialogues during the year by region, sector and sustainability area, where it is possible or confirmed that a violation of an international convention occurred.

77 milestones during 2021

Key ratios for reactive dialogues are reported for 2021 with more detailed statistics. At year-end 2021, active dialogues were being conducted with 85 companies. In these dialogues, 77 milestones were achieved during the year.

Read more on the Council on Ethics' website: www.etikradet.se.



Influencing companies to adopt more systematic sustainability work with policies, implementation and transparent reporting prevents incidents from taking place.

This is a violation

A violation of an international convention is considered to be confirmed when it has been verified and assessed according to a number of criteria, including:

- the severity of the violation
- the scope and opportunities to prevent the violation
- how strongly the company is involved in or associated with the violation
- the company's handling of the situation

An at-risk violation pertains to cases which, following an analysis based on the criteria above, do not meet all of the criteria for a confirmed violation, but where the severity of the violation is considered by the Council on Ethics to be high.

This category of companies also includes companies where, for example, a possible violation is being investigated and where a dialogue has not yet been initiated as well as companies with which the Council on Ethics has engaged in a dialogue, but where the risk is still considered to be high, prompting the Council on Ethics to monitor the company's work and the results of its actions taken.

Preventive projects

The Council on Ethics' preventive work contributes to positive change and resolution of various sustainability challenges in companies' operations. This work contributes to improvements that prevent accidents and incidents.

Preventive projects	Sustainability areas	Background	Results
MINING & TAILINGS DAM SAFETY INITIATIVE	Human rights, environment, climate, corporate governance – business ethics	The raw materials extracted from mines are essential for our modern society as well as for the climate transition. Mining activity is encumbered with many challenges that are also difficult to manage. There are an estimated 3,500 tailings dams from mines globally, often with limited public information about their safety status. Tailings dams are ageing, and the accident frequency rate is expected to rise if they are not maintained. The consequences of a dam failure are often tragic, with extensive impacts on the environment, flora and fauna, people, and for the company's operations.	In 2021 the Council on Ethics complete this large and successful project, which had been under way for three years. The Council on Ethics played a leading role in the work on creating a global, open database with important information about tailings dams globally, ensuring the creation of a first global standard for tailing dams, and on establishing an institution that is responsible for the database and for ensuring that companies comply with the global standard for tailings dams. The Council on Ethics' assessment is that this work has now entered a more administrative phase and has thus concluded its work.
TECH GIANTS AND HUMAN RIGHTS	Human rights, corporate governance – business ethics	Information technology is integrated in global society and is used daily by billions of people. The internet, personal electronic devices and social media are intrinsic to our economic and social future. Technology presents sustainability opportunities as well as challenges.	This project has been in progress for three years and was initiated with the Council on Ethics' own knowledge base. The Council on Ethics thereafter worked together with the Danish Institute for Human Rights (DIHR) on producing a document that stipulates expectations and requirements from investors to companies. During the year, dialogues were conducted with companies based on this document. It is gratifying to note that many of the companies have employed more people with human rights expertise and have drafted clearer policies on how they are to work going forward.
TRANSITION IN EMISSIONS-IN-TENSIVE INDUSTRIES	Climate, environment	Successfully addressing the climate crisis will require a meaningful transition. Governments need to adopt clear regulations that enable a fair and smooth transition. Companies need to change their business models, and consumers and citizens need to change their consumption and behaviour patterns.	In 2020 a collaboration was initiated with the Institutional Investors Group on Climate Change (IIGCC) and Climate Action 100+ (CA100+), among others, to draw up a plan for how investors can best support and facilitate the transition in various sectors to a low-fossil society. Today roundtable dialogues are being conducted with various actors in sectors' value chains to facilitate a faster technological transition through collaboration. Roadmaps outlining how the transition can take place have been published for the steel and power generation sectors, among others.
FORCED LABOUR	Human rights, Corporate governance – business ethics	Forced labour exists in many countries and sectors around the world and is estimated to involve at least 40 million people.	A pilot study was conducted in autumn 2020. During 2021, dialogues were initiated with companies in the construction and textile industries, which are two sectors that have been assessed as having high risk for forced labour.

Preventive projects	Sustainability areas	Background	Results
FUTURE FOOD PRODUCTION	Climate, environment	Today's global food production contributes to emissions, deforestation, water stress and loss of biodiversity at the same time that Earth's population is growing. This affects sectors, companies and consumers, and a transition is needed.	A pilot study was conducted during the year.
CHILD LABOUR	Human rights, corporate governance – business ethics	Ivory Coast and Ghana supply nearly 70% of the world's cocoa. It is estimated that more than 2 million children work in hazardous conditions in the cocoa supply chain in these two countries alone.	The Council on Ethics has worked with child labour and the cocoa industry since 2012. Improvements have been made, even though the problems have not been resolved. Companies' monitoring and remediation systems have improved, and cocoa and chocolate companies are working actively with the issues. The Council on Ethics believes that positive change can be achieved through blockchain technology, among other things.
DEFORESTATION	Human rights, environment, climate, corporate governance – business ethics	Palm oil and soybeans as well as livestock production provide necessary ingredients for many different products, both industrial and for consumption. These are industries with difficult challenges and where changes must be made if deforestation and loss of biodiversity are to be stopped.	Deforestation and responsible production have been in focus since 2014, when the Council on Ethics began working together with a group of other investors through Principles for Responsible Investment (PRI) to engage companies in dialogues. From the start, focus was mainly on palm oil producers. In 2021 the Council on Ethics conducted company dialogues and participated in a one-year collaboration project on sustainable palm oil production through PRI. The project was concluded in 2022.
ANTI-CORRUPTION	Corporate governance – business ethics	Corruption leads to unsound competition, undermines democracies and impedes economic growth. It is hard to address since it is conducted covertly. The need for transparency and governance is especially great in countries with a wealth of natural resources but deficient political governance.	The Council on Ethics has worked with anti-corruption from the start, and the problem is frequently addressed in company dialogues. The Council on Ethics supports the Extractive Industries Transparency Initiative (EITI), which promotes responsible management of natural resources such as oil, gas, metals and minerals.

Decisions to not invest in certain types of assets

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

When AP4 makes a determination regarding an investment, it is based on the requirement set forth in the AP Funds Act that management of assets that are held for the benefit of today's and tomorrow's pensioner shall be done in an exemplary way. This means that AP4 is to invest in and own companies in a responsible manner and contribute to sustainable development.

AP4's investment decisions are based on – in addition to the AP Funds Act – the Swedish state's core values, i.e., the international conventions and agreements that Sweden as a nation has chosen to support. These include, for example,

the UN's Universal Declaration of Human Rights, with respect to the climate issue, the Paris Agreement. International conventions are often written to govern how countries are to act, not regulate individual companies' operations. This means that sometimes there are different interpretations of whether – and in such case how – a given company is in violation of a convention.

In cases where there is confirmed information that a company is in any way in violation of a given convention, the AP Funds' joint Council on Ethics can recommend that the AP Funds not invest in the company. After making an own determination, or based on such a recommendation from the Council on Ethics, it is AP4's CEO who decides on which assets AP4 shall not invest in. If the decision pertains to a directly owned holding,

AP4 has the opportunity to directly influence the portfolio, and in such case the responsible fund manager is instructed to not include the asset in question in the portfolio. This pertains to equities as well as fixed income instruments.

In a case where AP4 has invested actively in a managed securities fund, AP4 evaluates the fund manager's sustainability process and determines the likelihood that the manager may invest in a company excluded by AP4. AP4 would then request an assurance from the manager that it only holds the asset in question as an exceptional case, and AP4 would inform the manager that holding an excluded company may constitute grounds for ending the fund management assignment. The underlying holdings are then followed up on a regular basis by AP4.



AP4 does not invest in:



Nuclear weapons

Kärnvapen räknas som

Nuclear weapons are classified as weapons of mass destruction, i.e., their use would bear a heavy toll on civilians. The Nuclear Non-Proliferation Treaty, signed in 1968, permits five nations to have nuclear weapons, while biological and chemical weapons are banned by UN conventions. At the same time, the five nations have committed themselves to reducing their nuclear arsenals and, over the long term, to entirely eliminating them. In the meantime, the five countries continue to update and modernise their nuclear weapons programmes. AP4 is of the opinion that this goes against the intention of the Non-Proliferation Treaty and decided in 2018 to not invest in companies with these types of operations.



Tobacco and cannabis

AP4 believes that stronger regulation of the tobacco industry is having a negative impact on tobacco companies' future stock market valuations. The decision was therefore made in 2016 to not invest in tobacco companies. Based on its mission to invest in an exemplary way, AP4 believes that an exemplary interpretation of the WHO Framework Convention on Tobacco Control, which seeks to sharply reduce tobacco consumption, supports AP4's decision to not have ownership in tobacco companies. In addition to this and based on the UN's conventions on narcotic preparations, the Council on Ethics of the AP Funds has recommended that the AP Funds not have ownership in companies active in cannabis. However, this decision, which was made in 2018, does not cover companies that develop or sell cannabis products for medical or scientific purposes.



Fossil-based companies – coal and oil sand

AP4 does not invest in companies for which thermal coal (coal used for e.g., power generation) or oil sand account for more than 20% of revenue. Both thermal coal and oil sand are energy sources with high CO2 intensity per energy unit. AP4 is of the opinion that these sources, in line with what is stipulated in the UN's Climate Convention and the Paris Agreement, must be phased out as soon as possible as part of the global climate transition. AP4's holdings in such companies were sold in 2018. In 2020 AP4 divested its holdings in energy companies in the global equity portfolio whose plans and goals are considered to be not aligned with the Paris Agreement. In addition, AP4 applies low-carbon strategies for global equities, entailing that AP4 is reducing its holdings in the companies in each sector that have high CO2 intensity in their operations.



Cluster munitions and mines

According to the UN's Mine Ban Treaty and the Convention on Cluster Munitions, nations that have signed and ratified these treaties shall cease to produce, conduct trade in or use these types of weapons. The Council on Ethics has recommended that the AP Funds not have ownership in companies with operations in this area, and in 2008 AP4 divested any such companies from its portfolio.



Company-specific exclusions

AP1-AP4 collaborate through the Council on Ethics of the AP Funds. In the event it is confirmed that an individual company is in violation of an international convention, the Council on Ethics may choose to engage in a dialogue with the company to bring about an improvement. If such a dialogue proves to be unfruitful, the Council on Ethics recommends excluding such company the AP Funds' investment portfolios. Based on recommendations from the Council on Ethics, AP4 has excluded companies that have violated conventions on health and safety, negative environmental impact, labour law, corruption and operations in occupied areas.

AP4's investments and the UN's Sustainable Development Goals

The UN's 2030 Agenda along with the 17 Global Sustainable Development Goals provides a plan of action to end extreme poverty, combat inequalities and deprivations, promote peace and justice, and solve the climate crisis in the world by 2030. The expectation is that all stakeholders – states, civil society and business – will work to achieve the Global Goals.

The Global Goals support AP4's work

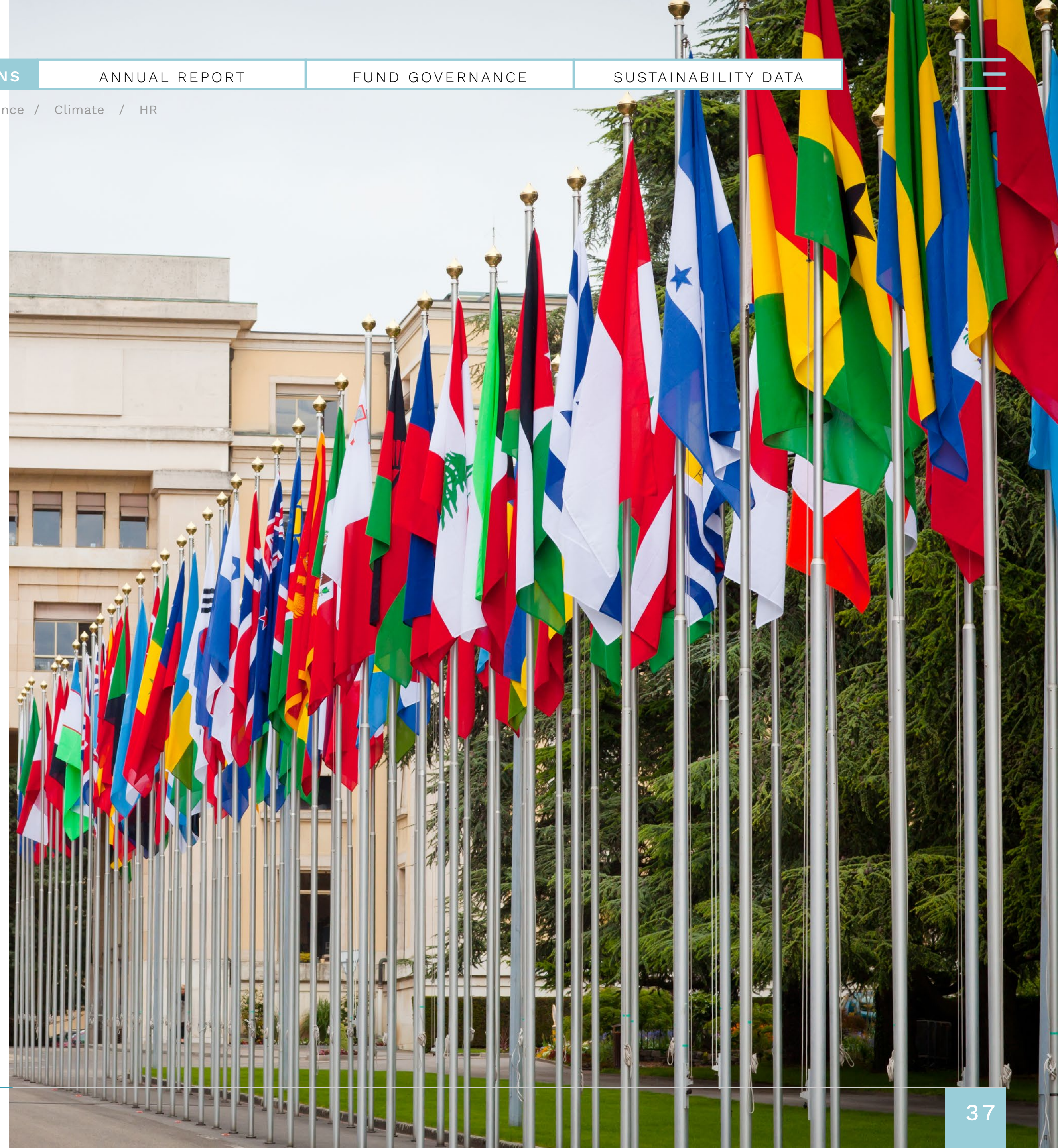
The Global Goals lend support to AP4's work on identifying global trends and areas where investments are needed that can generate expected favourable returns and contribute to sustainable development.

The Global Goals along with their underlying sub-goals and key ratios have mainly been written to support the work conducted by nations rather than by individual companies, which limits opportunities to couple investments to individual goals and measure their contributions. AP4 focuses on the Global Goals that are deemed to have investment potential, and most sustainability-oriented

investments that AP4 makes are considered to contribute to several of the Global Goals in a direct or indirect way.

The business sector's positive contributions to the Global Goals

A well-developed private business sector with well-managed companies that are run responsibly together with well-functioning stock markets are key components of a socioeconomic system that can provide greater prosperity for all citizens. In this way, the companies that AP4 invests in around the world contribute at an overarching level to economic development and thereby also to promotion of the Global Goals.



Following is an account of the Global Goals relevant to AP4's investments:

1. No poverty

AP4 invests in funds that invest in companies and assets that develop and provide renewable energy, water, wastewater management and transportation infrastructure in Africa, which in turn is contributing to improved living conditions in African countries.

2. Zero hunger

AP4 invests in a fund that is building and owns advanced greenhouses mainly in North America, focusing on sustainable food supply. Growing in controlled environments has significant sustainability advantages compared with traditional growing, including lower water use, less land use, and lower use of chemicals and pesticides.

3. Good Health and Well-being

AP4's Swedish equity management includes a considerable number of companies in the health sector, from small R&D firms to established, market-leading companies. AP4 has been an early investor in the health sector and provides funding to promote the development and establishment of new medicines, equipment and

health services. In the unlisted portfolio AP4 invests in funds focused on medical technology, among other areas.

4. Quality Education

AP4's partly owned property company Rikshem owns and develops school properties.

5. Gender Equality

AP4 influences as an investor and owner and as a representative on nomination committees for greater diversity and gender equality on company boards and organisations. This is an expressly stated objective for AP4's Corporate Governance focus area. AP4 supports international investor initiatives for greater gender equality and human rights.

6. Clean Water and Sanitation

AP4 invests in funds that develop and provide water infrastructure in Europe and Africa.

7. Affordable and Clean Energy

Greater access to renewable energy is a precondition for the climate transition. Investments are made in Sweden through Polhem Infra, which is jointly

owned by AP1 and AP3. Polhem has investments in bioenergy, wind power and digital infrastructure. Internationally, investments are made through a number of funds and venture capital companies that invest in unlisted companies and assets with focus on sustainable infrastructure, including renewable forms of energy such as wind power, solar power, geothermal energy and bioenergy.

8. Decent Work and Economic Growth

AP4 participates in international owner initiatives and – through the Council on Ethics of the AP Funds – engages companies in dialogues to promote decent working conditions, protect workers' rights, promote a safe and secure work environment, and combat forced labour, child labour and modern slavery. These are also issues of significant importance in the screenings that are made prior to decisions on investments in unlisted companies.

9. Industry, Innovation and Infrastructure

In the unlisted portfolio, AP4 makes thematically oriented investments in funds that invest

in companies whose operations are focused on supporting and accelerating the transition to a sustainable economy, such as through innovative business models, manufacturing methods, products or services.

Through its work as an active owner, AP4 urges companies in the unlisted portfolio to accelerate their sustainability transitions through development and innovation. The Council on Ethics works within the framework of Climate Action 100+ in sector dialogues to help individual companies in their transitions.

11. Sustainable Cities and Communities

AP4's unlisted property companies work with sustainability in an integrated way, including reducing their carbon footprints. Both Vasakronan and Rikshem, AP4's two largest property company holdings, are working actively with the climate transition and have set goals to be climate-neutral by

2030. The unlisted investments in electrification and digital infrastructure are also making a positive contribution.

12. Responsible Consumption and Production

Sustainable food production is a precondition for the ability to feed growing populations. In the unlisted portfolio, AP4 has invested in a fund that is building and owns advanced greenhouses as well as in a fund that invests in companies at an early stage whose focus is on sustainable food production chains, such as through alternative proteins, healthy diets, circular value chains and regenerative agriculture.

13. Climate Action

Achieving development that is in line with the Paris Agreement and combating climate change require substantial investments in fossil-free energy at the same time that resource-intensive

companies in the areas of energy, utilities and materials need to undergo a significant transition. AP4 invests in listed companies in these sectors that are currently undertaking a journey of change and that themselves are investing heavily in the climate transition. Focus is also on companies that are at the forefront with respect to renewable and recyclable resources. On a sector-independent basis, AP4 invests in listed global companies that are continuously developing their sustainability work in order to be in line with the Paris Agreement. In the unlisted portfolio, AP4 makes investments in Sweden and internationally in renewable energy and electrification via funds and investment companies such as Polhem Infra.

AP4 urges companies to refrain from negative climate lobbying, urges stock markets around the world to apply sustainability reporting guidelines,

and supports initiatives calling for resource-intensive companies to work to reduce their negative environmental impacts. AP4 does not have ownership in companies that derive a significant share of their revenue from thermal coal or oil sand.

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 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.



Corporate governance – with focus on long-term company development

As a long-term and engaged owner, AP4 works in the best interest of each company and its shareholders. AP4's corporate governance work aims to generate the highest possible return over time with the goal that the companies' operations will develop 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 maintaining 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.

Owners and market actors

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. Examples of international corporate governance organisations that AP4 is a member of include the International Corporate Governance Network (ICGN) and the Institutional Investors Group on Climate Change (IIGCC). The ICGN is a leading actor in establishing global standards for corporate governance and how owners should act. The IIGCC works to support responsible shareholders in their efforts to jointly influence companies and countries to embrace a faster transition of their operations and thereby slow climate change.

Ownership policy – a guardrail

AP4's corporate governance work is based on its ownership policy, which can be read in its entirety on [AP4's website](#), which also includes information that reports in greater detail on current ownership matters. Many of the matters that were addressed ahead of and at Swedish

companies' annual meetings in 2021 involved remuneration, mandates to carry out share issues, and board work – matters that AP4 has worked with for many years. AP4 and the majority of Swedish owners want to see remuneration programmes with relevant and clear performance requirements. As board work is tending to be increasingly complex, emphasis is put on the importance that board members dedicate the requisite time to board work and that they are active participants at board meetings.

Globally AP4 has voted in favour of matters that safeguard 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. AP4 also supports recommendations for greater transparency in companies' work with sustainability issues, such as how carbon emissions can be reduced and how companies can better communicate their advocacy work and how it is financed.

Corporate governance in Swedish companies

Over time, AP4 has seen that the workload for boards of listed companies has grown in scope, complexity and time, which requires a greater work effort by directors

and higher demands on experience and competence. For many years AP4 has advocated for at least one woman being included as a final candidate in nominations for new board members. This has had good results over time and has helped bring about a higher share of women on the company boards for which AP4 participates on the nomination committee. For the companies in which AP4 was represented on the nomination committee in 2021, the share of women directors was 36%. This is lower than in previous years and is due in part to a different composition of companies in which AP4 is represented on the nomination committee. At the same time, the level is higher than the average for listed Swedish companies overall, which was 35%. The share of women among newly elected directors was also lower in 2021 than in previous years, which is partly explained by fewer changes in board members during the ongoing pandemic, as certain, planned changes were postponed until there are greater opportunities for in-person board meetings. The share of new directors nominated by principal owners has therefore increased. These new directors are men to a greater extent. The levels show that achieving the Swedish Corporate Governance Board's target of at least a roughly 40% share

for either gender is a long-term undertaking and that continued active input from institutional owners is needed.

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:

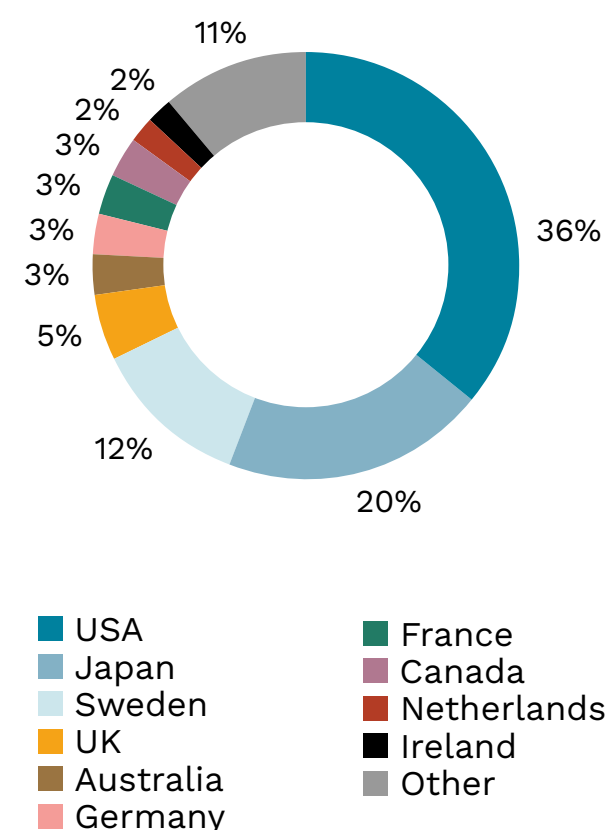
- in the larger companies in the respective markets,
- in companies with which the Council on Ethics of the AP Funds has engaged in a dialogue,
- in companies that are included in portfolios in which AP4 conducts active management, and
- in companies in which AP4 supports an international initiative.

In foreign companies, AP4's share of ownership is typically lower than 0.05%. This affects opportunities to exercise 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.

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 62 Limited Partner Advisory Committees (LPACs) or boards, corresponding to 78% of unlisted investments in the portfolio.

Voting per market, breakdown of AGMs



Work on nomination committees

Work on nomination committees	2021	2020	2019	2018	2017
Swedish nomination committees on which AP4 has worked, number	40	39	37	33	30
- corresponding to % share of the number of companies in which AP4 was offered a seat on the nomination committee due to its ownership	85%	98%	-	-	-
Share of women on Swedish company boards in which AP4 worked on the nomination committee, %	36%	38%	37%	37%	-
Share of companies with final candidates of both genders in which AP4 worked on the nomination committee, %	47%	52%	76%	-	-
Share of newly elected women directors on Swedish company boards in which AP4 worked on the nomination committee, %	20%	44%	44%	39%	52%

Voting at general meetings

Voting at general meetings	2021	2020	2019	2018	2017
Voting at general meetings (annual and extraordinary) in Sweden, number	147	109	87	90	73
- corresponds to % participation at AGMs of AP4's total number of holdings in listed Swedish equities	69%	51%	47%	51%	41%
Voting at general meetings of foreign companies (annual and extraordinary), number	1,064	1,043	1,025	971	896
- corresponds to % participation at general meetings of AP4's total number of holdings in listed equities globally	77%	73%	67%	63%	57%

Work on Swedish nomination committees

One of the most important duties for an active owner is to evaluate and appoint company boards. AP4 does this through its work on nomination committees. In addition to the decisions that are customarily handled by nomination committees, AP4 works mainly with owner issues that are subject to a resolution by a general meeting of shareholders, such as capital structure, remuneration and incentive programmes, and strategic matters.

The share of women among newly elected directors was lower in 2021 than in previous years which is partly explained by fewer changes in board members during the ongoing pandemic, as certain, planned changes were postponed until there are greater opportunities for in-person board meetings. The share of new directors nominated by principal owners has therefore increased. These new directors are men to a greater extent.

Voting at general meetings

With respect to general meetings of Swedish companies, AP4 gives priority to companies in which it has a major shareholding or where AP4 is one of the company's larger owners as well as general meetings at which a matter of a principle nature is addressed. The increase in participation at general meetings in 2021 compared to previous years is mainly due to a significant increase in the number of companies in which AP4 is among the ten largest owners.

When AP4 votes at general meetings of foreign companies, its focus is on issues related to transparent reporting and satisfactory handling of issues that pertain to climate matters, the environment, social aspects and corporate governance.

Summary of AP4's voting on individual issues at general meetings of Swedish companies in 2021

Issue ¹	Board recommendations			Shareholder proposals		
	Number	AP4 for	AP4 against	Number	AP4 for	AP4 against
Directors and discharge from liability ²	-	-	-	2,121	100% ³	0% ³
- of which, election of directors	-	-	-	819	100% ³	0% ³
- of which, AP4 on nomination committee	-	-	-	295	100%	0%
Incentive programmes ⁴	79	86%	14%	-	-	-
- of which, for employees	72	93%	7%	-	-	-
- of which, for directors	7	14%	86%	-	-	-
Adoption of financial statements, election of auditor, etc. ⁵	1,047	100%	0%	108	100%	100%
Takeover protection ⁶	-	-	-	-	-	-
Capital structure, organisation, acquisitions	217	94%	6%	-	-	-
- of which, new issues without preferential rights	97	88%	12%	-	-	-
Environment and health	-	-	-	7	0%	100%
Corporate governance ⁷	-	-	-	88	90%	10%
Social issues and human rights	-	-	-	2	0%	100%

¹ AP4 röstade under 2021 vid 147 svenska bolagsstämmor. Tabellen ovan redovisar hur AP4 röstade vid dessa stämmor uppdelat på typ av fråga samt om förslag till stämman presenterats av styrelsen eller av enskilda aktieägare. Om andel röster för och emot inte summerar till 100 procent så beror det på att AP4 har valt att avstå från att rösta i vissa fall.

² Proposals to discharge directors from liability are addressed in accordance with statutory requirements at general meetings. However, formally it is neither the Board nor shareholders who submit such proposals.

³ In certain cases AP4 has abstained from voting or has voted against a proposal. Due to rounding differences, these are not shown in the table.

⁴ The total number of formal resolution points at general meetings pertaining to remuneration and incentive programmes was 415 in 2021. The large number is due to technical issues surrounding how incentive programmes are designed, such as authorisations for the Board to make decisions on transfers of treasury shares, issue instruments, etc.

⁵ The large number of individual resolution points in this category consist of formal issues such as election of a chair to preside over the general meeting, appointment of persons to sign and check the minutes, drawing up and approval of voting registers, approval of the minutes and determination of whether the general meeting has been duly convened. Proposals for auditors are submitted by the nomination committee.

⁶ The issue of takeover protection is common at general meetings of foreign companies, but not in the Swedish stock market.

⁷ Most of these proposals pertain to decisions regarding the nomination committee or principles for companies' nomination committees. On this issue AP4 voted in favour of 99% of the cases.

Voting at general meetings of Swedish companies

Through work on nomination committees ahead of the 2021 AGM season, AP4 contributed to 295 nominations of board members. AP4 voted in favour of all nominated directors during the 2021 AGM season except for in one case, where AP4 abstained from voting. This case pertained to a company domiciled in the USA for which the Chair of the Board and CEO are the same person, which is against AP4's ownership policy, but is common under US practice.

With respect to incentive programmes for employees, in 22 cases AP4 engaged the company in a dialogue before its board adopted the proposal. In five cases, AP4 voted against the proposed programme, typically owing to insufficient – or the absence of – performance criteria.

A number of proposals were submitted for incentive programmes for board members, which does not balance the directors' interests with the shareholders' interest for a long-term favourable return. The proposals had a short-term focus, plus they had complex terms that could affect the directors' integrity. Only one such proposal had an acceptable design.

AP4 usually votes in favour of authorisations for issues of up to 10%. AP4 supports larger authorisations only in exceptional cases, where special reasons exist. Most shareholder proposals submitted to general meetings of Swedish companies have been of such an operative character that AP4 has determined that a general meeting is not the right decision-making forum and has therefore voted against them. In certain cases it was determined that the proposal was not in the company's or shareholders' interest.

Summary of AP4's voting on individual issues at general meetings of foreign companies in 2021

Issue ¹	Board recommendations			Shareholder proposals		
	Number	AP4 for	AP4 against	Number	AP4 for	AP4 against
Directors and discharge from liability	8,828	92%	7%	122	41%	58%
Incentive programmes	1,486	41%	56%	22	27%	73%
Adoption of financial statements, election of auditor, etc.	2,020	69%	22%	120	69%	28%
Takeover protection	118	40%	60%	-	-	-
Capital structure, organisation, acquisitions	884	67%	33%	-	-	-
Environment and health	-	-	-	51	59%	41%
Corporate governance	-	-	-	32	47%	53%
Social issues and human rights	-	-	-	22	64%	36%

¹ AP4 voted at general meetings of 1,064 foreign companies in 2021. The table above shows how AP4 voted at the meetings, broken down by type of issue and proposals submitted to the meeting by the Board of Directors or individual shareholders. In cases where the number of votes does not sum up to 100%, this is because AP4 chose to abstain from voting.

Voting at general meetings of foreign companies

AP4 voted against 7% of Board recommendations pertaining to the election or re-election of directors and discharge from liability. This mainly pertained to re-election of directors or a chair of a board committee that drafted proposals to the general meeting that were not in compliance with generally accepted corporate governance practices and where the directors involved did not heed previous general meetings' urges for improvements of content and transparency concerning, for example, remuneration programmes for executive management, where the directors' fees, composition and independence were not in compliance with best practice.

With respect to more than half of board recommendations pertaining to variable remuneration programmes and takeover protections, AP4 voted against the Board's recommendation.

With respect to shareholder proposals pertaining to climate matters, health, corporate governance, social aspect and human rights, AP4 voted in favour of the shareholder proposals in the 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.

The companies that AP4 has ownership in must both perform well and contribute to sustainable value creation

Lovisa Runge, portfolio manager at AP4, sees nomination committee work as an effective tool for understanding, managing and mitigating risks in holdings, which over time generates and safeguards shareholder value.

Why is nomination committee work an important part of management of the Swedish equity portfolio?

– As one of the ten largest institutional owners in Sweden, AP4 regards active corporate governance as a central part of its asset management model. One cornerstone of the Swedish equity management's investment philosophy is to act long-term in the owner role based on large ownership positions. It is for this reason that we dedicate a large share of our time to working in our role as an owner, through dialogue with the companies and through work on their nomination committees. The nomination committees that

we serve on are handled by us in our internal asset management team, and often it is the person on the team with the most in-depth knowledge about the company who takes the seat on the nomination committee. Working on nomination committees gives us a better understanding of the companies, and we regard such work as an important governance tool for ensuring that the companies we have ownership in will perform well and thereby contribute to long-term sustainable value creation, which is essential if we are to achieve our goal of maintaining a high active return over time. Over a five-year evaluation horizon, AP4's Swedish equity portfolios have

generated an average excess return of 4.2 percentage points per year.

What does it entail to work on a nomination committee?

– A nomination committee is a forum for the largest shareholders and is usually composed of representatives from the three or four largest shareholders of a company, but it works at the same time in the interests of all the shareholders. Nomination committee work is one of the most significant responsibilities for a large owner. Concretely, a nomination committee's duties include submitting recommendations to the general meeting for election of directors, the chair of the board, the auditor, their fees, and also for a person to serve as chair of the annual general meeting. In this capacity the nomination committee evaluates the board's work and performance through interviews with the individual board members. The nomination committee's work promotes a transparent discussion with other interested parties on the company's long-term path forward.

What issues are important to emphasise on nomination committees?

– The starting point is to work in the company's best interest, and

the absolute most important task is to ensure that the companies that AP4 owns will have the best possible board composition for the specific company's needs. Nomination committee work also provides opportunities to informally discuss and ask questions to company boards in important areas. Like other Swedish institutional owners, for a long time now AP4 has been advocating for greater diversity in Swedish boards. On this point we work to ensure that the Swedish Code of Corporate Governance's recommendation on the share of women on boards is achieved. This has contributed to an increase in the share of women on the company boards for which AP4 has served on the nomination committee compared with the Stockholm Stock Exchange as a whole.

What is the most rewarding part of working on a nomination committee?

– As an analyst or fund manager, it's not often one comes in direct contact with a company board. Nomination committee work therefore adds an extra dimension to the fund management work and contributes to a greater understanding of a company's business, strategy and challenges. Plus it feels meaningful to be able to contribute to a company's long-term value creation. One exciting result of nomination committee work is that it enables AP4 to build networks that can lead to more business opportunities.



Photo: Lovisa Runge

Metrics and goals for Corporate Governance focus area

Goals	Key metrics	Outcome 2021	Description
Participate on nomination committees by virtue of ownership stake	<ul style="list-style-type: none"> Number of nomination committees Share of nomination committees on which AP4 has been offered a seat 	40 85%	<ul style="list-style-type: none"> One of the most important duties for an active owner is to evaluate and appoint a company's board. AP4 does this by serving on nomination committees
Interview all or certain board members in connection with board evaluations	<ul style="list-style-type: none"> Share of companies in which AP4 has interviewed all or certain board members 	100%	
Advocate for greater diversity among board members, especially in terms of gender balance	<ul style="list-style-type: none"> Share of women among newly elected directors 	20%	<ul style="list-style-type: none"> The share of women among newly elected directors was lower in 2021 than in previous years, which is partly explained by fewer changes in board members during the ongoing pandemic, as certain, planned changes were postponed until there are greater opportunities for in-person board meetings. The share of new directors nominated by principal owners has therefore increased. These new directors are men to a greater extent
Exercise voting rights at Swedish companies' AGMs	<ul style="list-style-type: none"> Number of Swedish AGMs at which AP4 voted Number of Swedish AGMs at which AP4 voted in relation to total holdings 	147 69%	<ul style="list-style-type: none"> AP4 prioritises AGMs of Swedish companies in which it has a significant shareholding or in which it is one of the major owners, and meetings at which an issue of principle is to be taken up
Exercise voting rights at foreign companies' AGMs	<ul style="list-style-type: none"> Number of AGMs of foreign companies at which AP4 voted Number of AGMs of foreign companies at which AP4 voted in relation to total holdings 	1 064 77%	<ul style="list-style-type: none"> When AP4 votes at an AGM of a foreign company, issues such as transparent reporting and satisfactory handling of issues related to the climate, environment, social aspects and corporate governance are in focus
Support initiatives that advocate for shareholders' rights and companies' work with sustainability	<ul style="list-style-type: none"> Qualitative assessment 		<ul style="list-style-type: none"> AP4 supports, among others, the Institutional Investors Group on Climate Change (IIGCC), the Transition Pathway Initiative (TPI) and Climate Action 100+ (CA100+), which strive to influence companies with the largest carbon emissions to take measures to reduce their carbon footprints. Within the framework of CA100+, AP4 is engaged in three company dialogues, where all three companies – Daimler, Engie and Volkswagen – have now set targets to be climate neutral by 2050 at the latest. Through the "Hållbart värdeskapande" initiative, AP4 contributed to a human rights seminar in the Swedish stock market together with the organisation SHIFT. Additional investor initiatives that AP4 participates in through the Council on Ethics are described on pages 33-34. Through the association Institutionella Ägares Förening (IÄF), AP4 submitted views on the European Commission's Sustainable Corporate Governance proposal, urging it to reconsider certain points. Like many other representatives of the European business sector, AP4 is of the opinion that the proposals could have a detrimental effect on shareholders' rights

Active corporate governance is an effective tool for creating and maintaining shareholder value over time

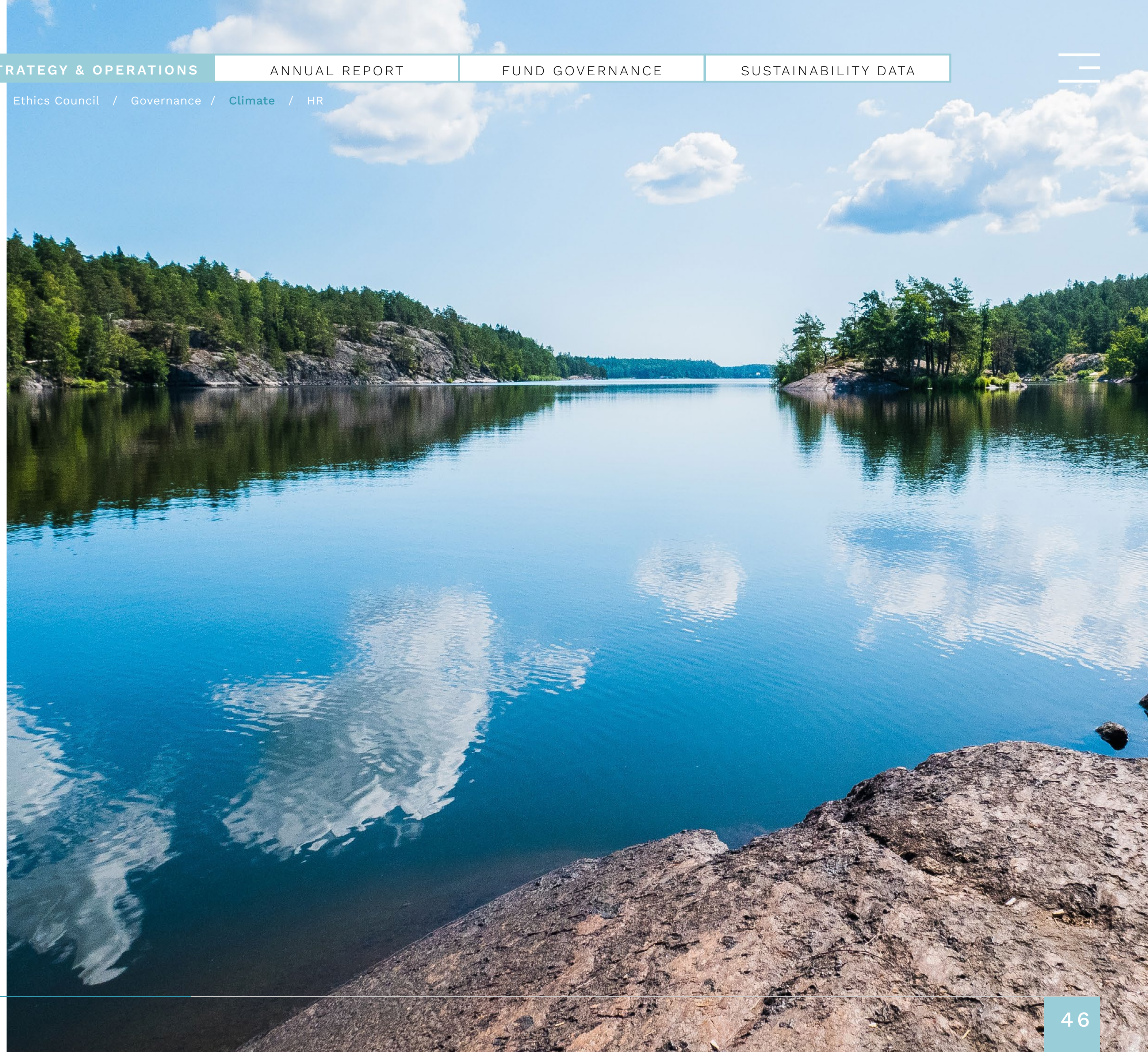
As a long-term and engaged owner, AP4 advocates for the best interests of each individual company and its shareholders. AP4's ownership work aims to contribute to generation of the highest possible return over time, and the long-term goal is that the companies' businesses will develop, improve, and be conducted responsibly and transparently, and thereby contribute to the companies' long-term value creation.

Climate & Environment – with focus on one of the greatest challenges of our timer

Climate change is one of the greatest challenges of our time, with a major expected impact on the environment, biodiversity, ecosystems and ecosystem services. Thus countries, sectors, companies and individual people will also be affected. Climate change is considered to be a serious systemic risk that will have a growing impact on asset values and opportunities to generate long-term returns. Slowing climate change is a prerequisite for stable economic growth and thereby for AP4’s opportunities to successfully perform its mission over time.

Climate & Environment is a prioritised sustainability area in AP4’s asset management operations. The area is considered to be financially material and entails systemic risks that affect the ecological, social and financial stability of all the world’s economies

and countries. Sectors and companies with couplings to climate change are exposed to significant risks – physical, regulatory, technological and social. These could bear a substantial impact on asset values and opportunities to generate returns over the long term.



The climate transition

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 cut carbon emissions by more than half for the listed equity portfolio since 2010, with a decrease of 60%. AP4's target is to further cut emissions in half from the 2020 level with the ambition to achieve net-zero emissions by 2040 at the latest.

Climate risks 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 carbon emissions or fossil fuel reserves. The strategies are based on historical emission data as well as on forward-looking data on the extent to which companies' operations are aligned with the Paris Agreement and how various levels of carbon pricing may impact companies' margins. These parameters affect divestments in AP4's entire internally managed global equity portfolio.

The thematic global asset management operation that was established in 2020 has now analysed the three most resource-intensive

sectors: energy, utilities and materials generation and commodities. Companies whose plans and targets are not considered to be aligned with the goals of the Paris Agreement have been divested from the portfolio. Since previously AP4 does not own shares in companies with significant undertakings in thermal coal or oil sand. The overall result of this is that AP4's carbon footprint is approximately 60% lower than that of a broad global equity index.

Thematic investments

AP4 continuously analyses sustainability trends and seeks 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 invest 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, however, the long-term ambition is that these will increase considerably over time.

Based on the thematic sustainability analysis, in 2021 AP4 continued to make proactive sustaina-

bility investments amounting to SEK 13.7 billion. Climate-related thematic investments consist of new commitments in the unlisted portfolio, the build-up of a thematic portfolio of niche companies in the fundamental thematic management, and new investments in green bonds. AP4 continuously monitors the share of thematic investments in the investment flow and in the portfolio.

Influence as owner

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 carbon emissions in their own respective operations. In its ownership role AP4 influences companies and cooperates with other investors to broaden knowledge about how the climate issue can be addressed in the asset management operations. AP4 also engages in dialogues with political decision-makers to create conditions for a climate transition.

Two examples of investor partnerships that AP4 participates in are Climate Action 100+, which aims through investor dialogues with companies to influence them to reduce their greenhouse gas emissions and thereby slow climate

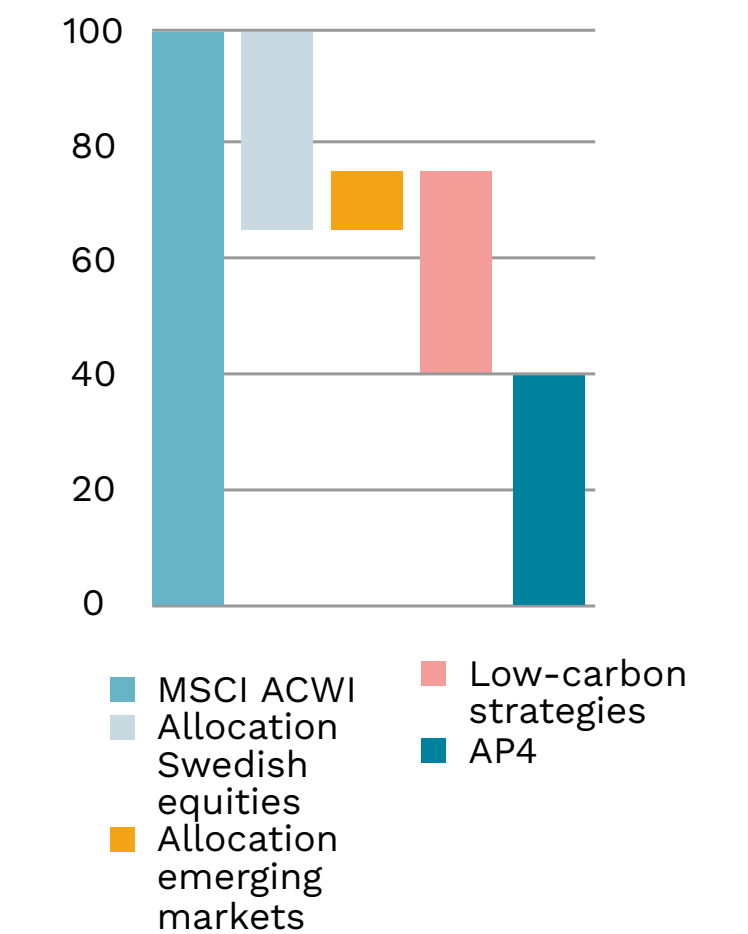
change, and the Transition Pathway Initiative (TPI), an investor-led initiative that urges companies to reduce their greenhouse gas emissions and transparently report on this work in accordance with the Task Force on Climate-related Financial Disclosures (TCFD). TPI is building a public database using companies' public information and assesses how far the companies have come in their transitions compared with international goals under the Paris Agreement. This work is conducted with support from an independent academic partner, the London School of Economics. AP4 supports the TPI's work and is a member of the TPI Steering Group.

AP4 is also carrying on an active dialogue with political decision-makers 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 incentive to reduce their carbon emissions. AP4's CEO along with a number of other employees are active participants and speakers at various investor and sustainability conferences. Key themes have been the need

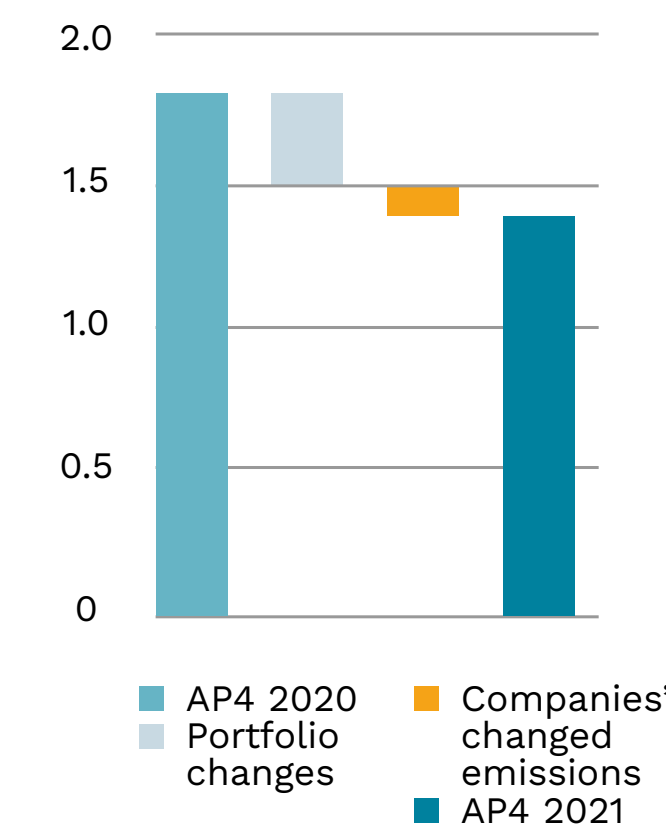
for a carbon pricing system and formulating support measures for a sustainable recovery of economies.

In 2021 the carbon footprint of the equity portfolio decreased by a further 23%, of which AP4's portfolio changes accounted for 18 percentage points and companies' emissions accounted for 5 percentage points. Since 2010 AP4's carbon footprint has decreased by 60%, of which AP4's portfolio changes accounted for 45 percentage points and companies' reduced emissions accounted for 15 percentage points.

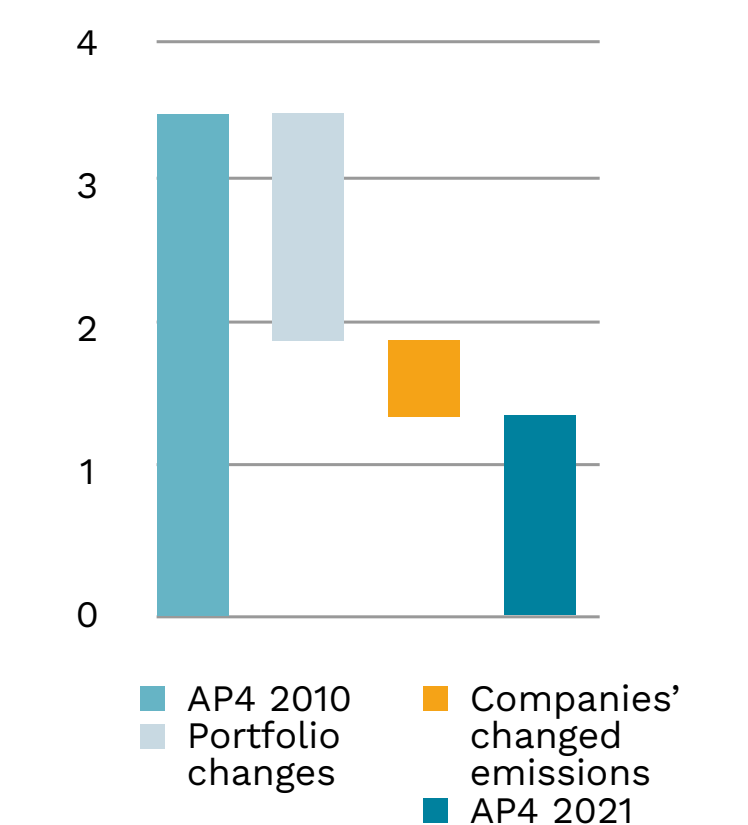
Contribution to CO₂ reduction, %



Changed CO₂e emissions 2021 (MtCO₂e)



Changed CO₂e emissions 2010-2021 (MtCO₂e)



Alternative investments that both contribute to a sustainable society and generate favourable returns

Jenny Askfelt Ruud is Head of Alternative Investments at AP4 and works together with her colleagues with thematically focused investments coupled to the climate transition. Here they talk about their work in 2021.

First, could you briefly describe AP4's strategy for these investments?

– AP4 is convinced that many investments that contribute to a more sustainable society will also generate favourable financial returns. In alternative investments, where we primarily invest in unlisted assets, we are confident about thematically focused investments, of which many are coupled to AP4's Climate & Environment focus area. Our focus takes its starting point from AP4's

sustainability analysis, which is largely about understanding, for example, how the climate transition affects value chains in various industries and sectors. We have identified three broad themes: the energy transition/mobility, resource efficiency, and renewable energy. Since 2019, we in Alternative Investments have actively sought out and made investments in unlisted equities and infrastructure based on our thematic analysis, explains Jenny.



Photo, from left: Jenny Askfelt Ruud, Hanna Idestrom and Andreas Jensen

Tell us about some of the investments that have been made, and why...

– During the year we made commitments of approximately SEK 10 billion in thematically oriented investments, of which most are in the energy transition, mobility, resource efficiency and renewable energy.

Electrification of our transportation system is an important component for achieving the goals of the Paris Agreement. Through our jointly owned venture capital company 4 to 1 Investments, the AP Funds (AP1, AP2, AP3 and AP4) have invested in the Swedish company Northvolt, which develops batteries with the market’s lowest carbon footprint and better sustainability performance. Northvolt is working towards establishing large-scale battery production in Europe, and we are looking forward to following the company’s development, Jenny continues.

Hanna Ideström, Senior Portfolio Manager at AP4, adds:

– The transition also requires better utilisation of the planet’s resources. Today, the agriculture and food sectors account for roughly 20% of

global greenhouse gas emissions. A transformation of the sector is needed, with greater use of alternative protein sources, circular value chains and regenerative farming, for example. We expect that investments in this area can generate a favourable return, given that the sector is now beginning to change, and AP4 has made a commitment to Re:food Invest, which invests in growth companies in these areas.

– More renewable energy is a prerequisite for the entire sustainability transition, says Andreas Jensen, also a Senior Portfolio Manager at AP4.

Andreas continues:

– Through Polhem Infra, an investment company that we jointly own together with AP1 and AP3, we have previously invested in Skaftåsen wind farm, one of Sweden’s largest wind power projects with capacity to generate approximately 535 GWh of electricity, and Solör Bioenergi, which delivers district heating in 51 cities. This year the owners made a new commitment to Polhem Infra, which thereby received an

additional SEK 9 billion to invest in sustainable infrastructure in Sweden. In addition, during the year AP4 made a co-investment together with the infrastructure private equity firm Antin in one of the largest independent project developers in solar energy in the USA. A commitment has also been made to the Meridiam Sustainable Infrastructure Europe fund, which will be investing in renewable energy in Europe, among other areas.

What motivates you to work at AP4?

– Contributing to financial security for today’s and tomorrow’s pensioners is something that adds and extra dimension to work. The ability to combine favourable returns with investments in companies and assets that contribute to a more sustainable future is highly inspiring. There are few organisations that have the opportunity to make a positive impact to a corresponding degree. It is also a strength to be able to work with colleagues who have such depth of expertise and a shared passion for sustainability, concur Jenny, Hanna and Andreas.

Metrics and goals for the Climate & Environment focus area

Goals	Key metrics	Outcome 2021	Description
Contribute in the climate transition to a sustainable society	<ul style="list-style-type: none"> Change in portfolio's CO2e emissions in 2021: Change in portfolio's CO2e emissions since 2010: 	<p>-23%</p> <p>-60%</p>	<ul style="list-style-type: none"> AP4's portfolio is to have net zero CO2e emissions by 2040 at the latest Intermediate goal to cut CO2e emissions in half by 2030 at the latest compared with 2020 For performance over a longer period of time, see table in the Sustainability Data section
Make investments that reduce climate risk in the portfolio	<ul style="list-style-type: none"> Portfolio's CO2e emissions as share of global equity index (MSCI ACWI) Portfolio's CO2e intensity as share of global equity index (MSCI ACWI) 	<p>39%</p> <p>40%</p>	<ul style="list-style-type: none"> Measures the listed equity portfolio's CO2e emissions based on each company's CO2e emissions weighted according to AP4's share of ownership in the respective companies Measures the respective companies' CO2e emissions in relation to their revenue, weighted according to AP4's portfolio share in the respective companies
Make proactive investments that contribute to and benefit from the climate transition	<ul style="list-style-type: none"> Proactive investments in sustainability trends that contribute to and benefit from the transition to a sustainable society 	13,7 mdkr	<ul style="list-style-type: none"> New commitments to proactive sustainability investments in the unlisted portfolio amounted to SEK 7.4 billion Within unlisted equities, a thematic portfolio of niche companies began to be built up, and these investments in unlisted equities amounted to SEK 5.2 billion in 2021 New investments in green and social bonds amounted to SEK 1.0 billion in 2021
Based on identified indicators, evaluate possible asset management strategies	<ul style="list-style-type: none"> Description of analysis and implementation 		<ul style="list-style-type: none"> Broadened mandate in green bonds to also include bonds issued by governments and supranational bodies Restructured investment in an emerging market fund for significant reduction of CO2e emissions
Advocate for a climate transition	<ul style="list-style-type: none"> Changed CO2e emissions owing to AP4's portfolio changes in 2021 Changed CO2e emissions owing to portfolio companies' reduced emissions in 2021 	<p>-18%</p> <p>-5%</p>	<ul style="list-style-type: none"> AP4 has reduced the portfolio's CO2e emission through portfolio changes To achieve the climate targets, the companies that AP4 has invested in must also reduce CO2 emissions in their respective operations AP4 supports organisations such as the Institutional Investors Group on Climate Change (IIGCC) and Climate Action 100+ (CA100+). The latter aims to influence the approximately 160 companies with the largest carbon emissions to take measures to reduce their carbon footprints. Within the framework of CA100+, AP4 is engaged in three company dialogues, where all three companies – Daimler, Engie and Volkswagen – have now set targets to be climate neutral by 2050 at the latest

Continued reduction of carbon footprint and increase in thematic sustainability investments

During 2021 AP4 further reduced greenhouse gas emissions in the listed equity portfolio by 23%. Since 2010 these emissions have decreased by a total of 60%, which is contributing to reduced climate risk in the portfolio. AP4 continuously analyses sustainability trends and developments in various sectors. The various asset management units actively search for investments that contribute to and benefit from the transition to a sustainable society. The goal is to make good investments from both financial and sustainability perspectives. Based on the thematic sustainability analysis, during 2021 AP4 made new investments worth a total of SEK 13.7 billion.

Thematic asset management with focus on resource-intensive sectors

Jan Petersson, Senior Portfolio Manager at AP4, describes his assignment to invest in resource-intensive sectors and companies that are at the same time contributing to the climate transition.

AP4 has some ownership in resource-intensive sectors. Why?

– We are in a climate transition that will affect not only society in general, but also companies that are active in energy, utilities and materials. At the same time that the world is in transition, fossil fuels will be needed within the framework of the remaining global carbon budget. Companies active in these sectors will be important for success with the transition, among other things through substantial investments in renewable energy and sustainable production of commodities that will be needed in the transition.

What distinguished work in 2021?

– At the end of 2020 we changed the energy company portfolio by selling our holdings in companies that we believed did not live up to the requirements to go from being oil companies to becoming integrated energy companies with a future focus on renewable energy. In 2021 we did the same thing in the utilities sector. In this work we are focusing on companies in renewable energy, electricity distribution, and hydro power and water supply. We have also gone through the commodities sector, where our focus is on companies that are strong in recycling. Apart for the goal of generating a favourable return on the pension

capital, our aim is to at the same time reduce the carbon footprint of the portfolio. This means that we now own larger stakes in a fewer number of companies. This also allows us to influence the companies to be both profitable and more sustainable.

How do you identify companies that are in a transition process?

– The energy, utilities and materials sectors together account for roughly 80% of global carbon emissions. If the carbon footprint can be reduced in these sectors, it will have a positive effect on the carbon footprint of AP4's portfolio as a whole. The goal is that the equity portfolio will be carbon-neutral by 2040. At the same time, society is dependent on fossil energy during the ongoing energy transition, and this is why we are actively searching for companies that have a plan to transition in a sustainable way. In this process, our forward-looking analysis model is important for coming up with an initial company selection. We read up on the companies' operations and their environmental work, and we have meetings both with the companies and external analysts to gain as much knowledge as possible.

We thereafter select a number of companies in each sector that we decide to invest in.

In parallel with this, we work with thematic investments globally, where the energy transition and recycling are two themes that AP4 prioritises and in which we see structural growth. Many of the companies we invest in are smaller, cutting edge firms that are active areas such as renewable energy and circular economies, yet are still leaders in their areas and can achieve high profitability over time.

What motivates you to work at AP4?

– Before joining AP4 I worked at Tellus Fonder, which I started in 2006. There we developed a thematic investment approach that was based on identifying long-term, structural investment themes in a global equity portfolio. When I learned that AP4 was working on the same line, I felt it fit like a glove. The focus that AP4 has on sustainability appeals to me, and as a state pension manager we have a great responsibility that I feel very proud to work with. On top of this, having the opportunity to contribute in an open and progressive environment with a lot of talent made AP4 a natural choice.



Photo: Jan Petersson

HR – for a sustainable work life

AP4’s ambition is to be an employer with sound values and that creates good conditions for all employees to be able to do a good job and develop and grow in their roles.

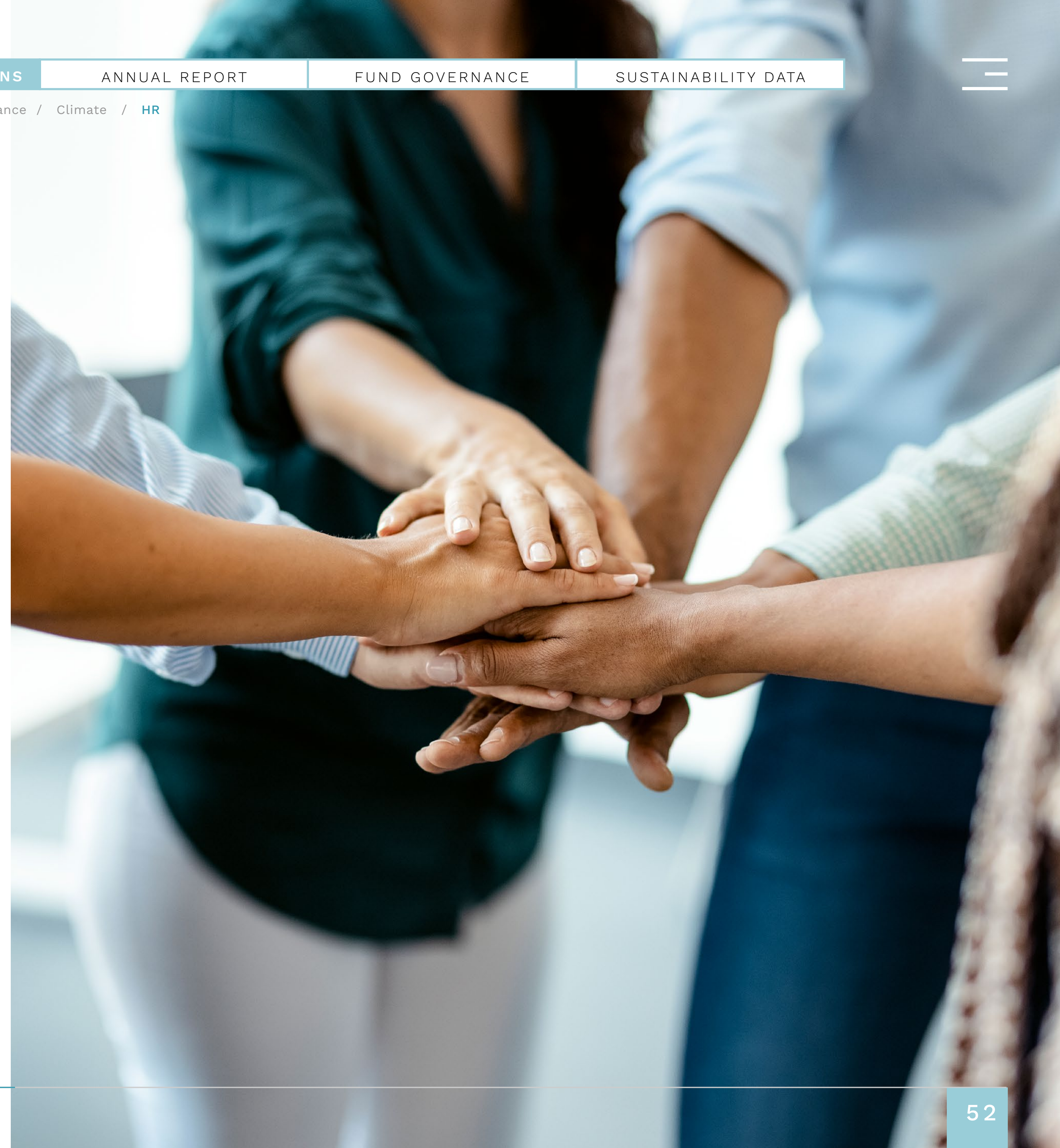
AP4 is a cost-efficient organisation that conducts knowledge-intensive operations with relatively few employees. This means that every employee has large responsibility and plays an important role in the operation’s results, which entails a certain dependence on individual persons. To manage and minimise personnel risk, AP4 needs to recruit and retain competent and committed employees while at the same time offer a stimulating, sustainable and rewarding career in exchange for its highly set requirements. AP4’s strategic HR work is characterised by identifying the right competencies and

right activities to develop and drive its operations forward.

AP4’s HR work requires a clear strategy that based on several different parts and that culminates in all employees at AP4 together building a strong culture with sound values. This also entails having an ethical compass with a clear code of conduct for the daily activities.

Culture and values

A strong and positive company culture is one of the most important preconditions for building and maintaining a sustainable, successful organisation.





Maintaining a balanced work life and good leadership are therefore important areas that AP4 works with on a continuous basis. The sustainability perspective is always an integral and central part of AP4's HR work. AP4 works in an environment in which specialist knowledge and depth of competence are decisive factors. This means that the culture must be characterised by a shared view of professionalism, work methods and implementation strength. The company culture at AP4 is a supportive culture that facilitates employees to be engaged, unassuming and secure, to cooperate in order to solve daily challenges – but also to take initiative to raise questions, reconsider and think new.

During 2021 AP4 continued to develop and strengthen its culture so that it will continue to be aligned both with the operational objectives and values. Equal treatment and equality are promoted at all levels in this work. During the year AP4 had continued strong focus on competence and leadership development. As in 2020, 2021 was characterised by Covid-19 and its associated restrictions. The pandemic has created challenges

for operations, but has also led to new, efficient ways of working for leaders and employees.

Competence succession

Regular competence inventorying is an important tool in the HR work that results in development plans at both the unit and individual levels. On top of this, yearly succession planning is conducted to identify what competencies are needed and which also serves as the basis for offering employees new development opportunities. AP4 also conducts market salary surveys to make sure its salary levels and remuneration programmes are in line with the market and reasonable. In addition to this, AP4 conducts a yearly salary mapping to ensure that there are no unreasonable pay differences between women and men in the organisation.

Equality and diversity

AP4 has a need of various key competencies, and in its recruiting activities, equality and diversity are a natural part of the process. When recruiting companies are used, AP4 requires that both women and men are included in the candidate selection. Candidates of the

under-represented gender are always called to an interview, assuming they meet the competency criteria. Among final candidates, at least one person shall always be included from the under-represented gender provided that they meet the competency criteria in the area in question.

Work environment

Work environment is a concept that pertains to the physical as well as the psychosocial environment. A good work environment is built upon committed and engaged employees who are able and eager to develop the workplace, but also to identify any risks and problems at an early stage. To promote long-term good health, AP4 offers not only a fit-for-purpose workplace, but also regular health exams and a wellness subsidy. AP4 also offers its employees voluntary healthcare insurance.

Employee surveys

To both ensure a long-term positive work environment and identify the areas that AP4's employees feel are of greatest importance for their health, motivation, engagement and goal fulfilment, every year AP4 conducts an employee survey.

AP4's values

We have implementation power

Owing to our strong sense of drive, engagement and perseverance, we get things done. We take initiative.

Together we are successful

We have a strong team spirit and draw from each other's expertise. We stand united in both good times and bad, and together we form a stronger organisation. We have trust and respect for each other, and take responsibility both as individuals and as a team.

We are professional in everything we do

By acting professionally we always work in the best interests of pensioners. Our ethics, reliability and responsibility shall leave no room for doubt.

We challenge and think new

We continuously develop our activities with creativity, curiosity and flexibility. We are distinguished by a willingness to embrace change.

Compliance

What is compliance?

For AP4 it refers to an independent function within the organisation that is responsible for ensuring that AP4 acts in accordance with applicable laws and regulations, and that reports to AP4's CEO or the Board

of Directors in the event of any irregularity. Compliance work can be conducted in a range of different ways, such as through advice, training, and implementation of new routines and processes, or through inspections and spot-checks.

Based on the results of this survey, AP4 draws up an action plan addressing areas for improvement as well as areas whose good results are to be maintained. The action plan is followed up continuously during the year. The results are reported and handled in accordance with AP4's process for development work. The 2021 employee survey showed improved results in all areas compared with the previous year's survey. The results of the survey have been reported internally and

handled in accordance with AP4's internal development process.

Ethics and morals grounded in rules and processes

Trust in and expectations on AP4 put high ethical demands both on employees and operations. Every year AP4's Board of Directors adopts an HR and ethics policy that is based on statutory regulations and ethics rules. On top of this, every year the CEO adopts a number of internal guidelines. These cover rules

on public procurement processes, remuneration and benefits, business travel, entertainment, employees' personal trading in securities, inside information and side jobs as well as on bribery and conflicts of interest. All employees are expected to take personal responsibility for adhering to the policy and guidelines, and if for any reason a dilemma arises, the matter is to be addressed in consultation with the employee's immediate manager.

Key ratios – employees

	2021	2020	2019	2018	2017
Number of employees, average	62	61	56	54	54
Whereof women, %	37	37	35	33	35
Number of persons in Executive Management, average	7	7	9	7	7
Whereof women, %	32	33	44	25	27
Average age, yrs	46	44	45	43	44
Employee turnover, %	14	3	9	19	11
Sickness-related absence, %	1.3	2.3	2.5	1.6	1.6

All employees have a great responsibility to do right in a simple and pragmatic way

Emily Teppler is responsible for the Compliance function at AP4 and maintains that AP4, as an important actor in the Swedish pension system, needs to make sure that its work meets high demands while adhering to rules and regulations.

Why are compliance issues so important for AP4?

– AP4 is a state pension fund with a strong brand and high level of integrity. This means that it is of utmost importance that we always act correctly and in an ethically impeccable way. Moreover, as a Swedish state agency, we represent all of the Swedish people.

What are AP4's biggest challenges regarding compliance?

–The main challenge is that we are a state agency that works both within the state and financial arenas. As a result, the breadth of rules and regulations we are covered by is extensive. Moreover, the aims of the various rules and regulations can differ. The focus of the state

sector is often on public access to information, transparency and stewardship of state funds, while financial rules and regulations are often aimed at protecting consumers and managing the systemic risks that exist in the financial markets. Plus we are relatively few employees who are responsible for managing a large amount of capital. This means that AP4's employees must all take very great personal responsibility.

Why did you seek out AP4 to work with compliance?

– AP4 is an important actor in the Swedish pension system, and personally I find it rewarding to work for a good cause. I have chosen to work with compliance because I believe these are important

issues, both from a broader system perspective and to ensure that the work conducted at AP4 is always done in accordance with the rules and at the same time maintains a high standard.

What is most inspiring about your work at AP4?

– What I find most inspiring is working so closely with all of AP4's employees from various perspectives, from the board down to the line organisation. I am responsible for the overarching compliance work at the same time that I can be hands-on and make changes where necessary. My ambition and goal is to continue making sure that everyone at AP4 does right in both an effective and pragmatic way.



Photo: Emily Teppler

The Fourth Swedish National Pension Fund's sustainability report for 2021

The Fourth Swedish National Pension Fund (AP4) has prepared a sustainability report for the 2021 financial year.

The sustainability report 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 guidelines for sustainability reporting set out in the Annual Accounts Act as well as in the GRI Standards.

Sustainability reporting is presented on pages 10-55 and on pages 94-104.

Stockholm den 22 februari 2022

Britta Burreau
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

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

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

Engagement and responsibility

It is the Board of Directors who is responsible for the sustainability report for the year 2021 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, 22 February 2022

Helena Kaiser de Carolis
Authorised
Public Accountant

Peter Nilsson
Authorised
Public Accountant



Annual Report

Return of 19.2% after costs, and the result was a full SEK 85.7 billion. This is the highest result ever since AP4 began operating in 1974.

Directors' report 2021

With a return of 19.2% (9.6%) after costs in 2021, AP4's net result for the year was SEK 85.7 billion (39.3). Fund capital at year-end 2021 amounted to SEK 527.6 billion (449.4). The stock market's strong performance in 2021 against the background of the continued normalisation of the global economy in the wake of the pandemic contributed to the favourable result.

Result and fund capital

Fund capital increased by SEK 78.2 billion (31.4) to SEK 527.6 billion (449.4). The change in fund capital consists of the net result for the year of SEK 85.7 billion (39.3), i.e., the return for the year after management costs, and net payments of SEK 7.5 billion (7.9) to the public pension system.

SEK billion	2021	2020
Fund capital, opening balance	449.4	418.0
Net payments to the pension system	-7.5	-7.9
Net result for the period	85.7	39.3
FUND CAPITAL, CLOSING BALANCE	527.6	449.4

Portfolio allocation

Reduced long-term required rate of return ahead of 2021

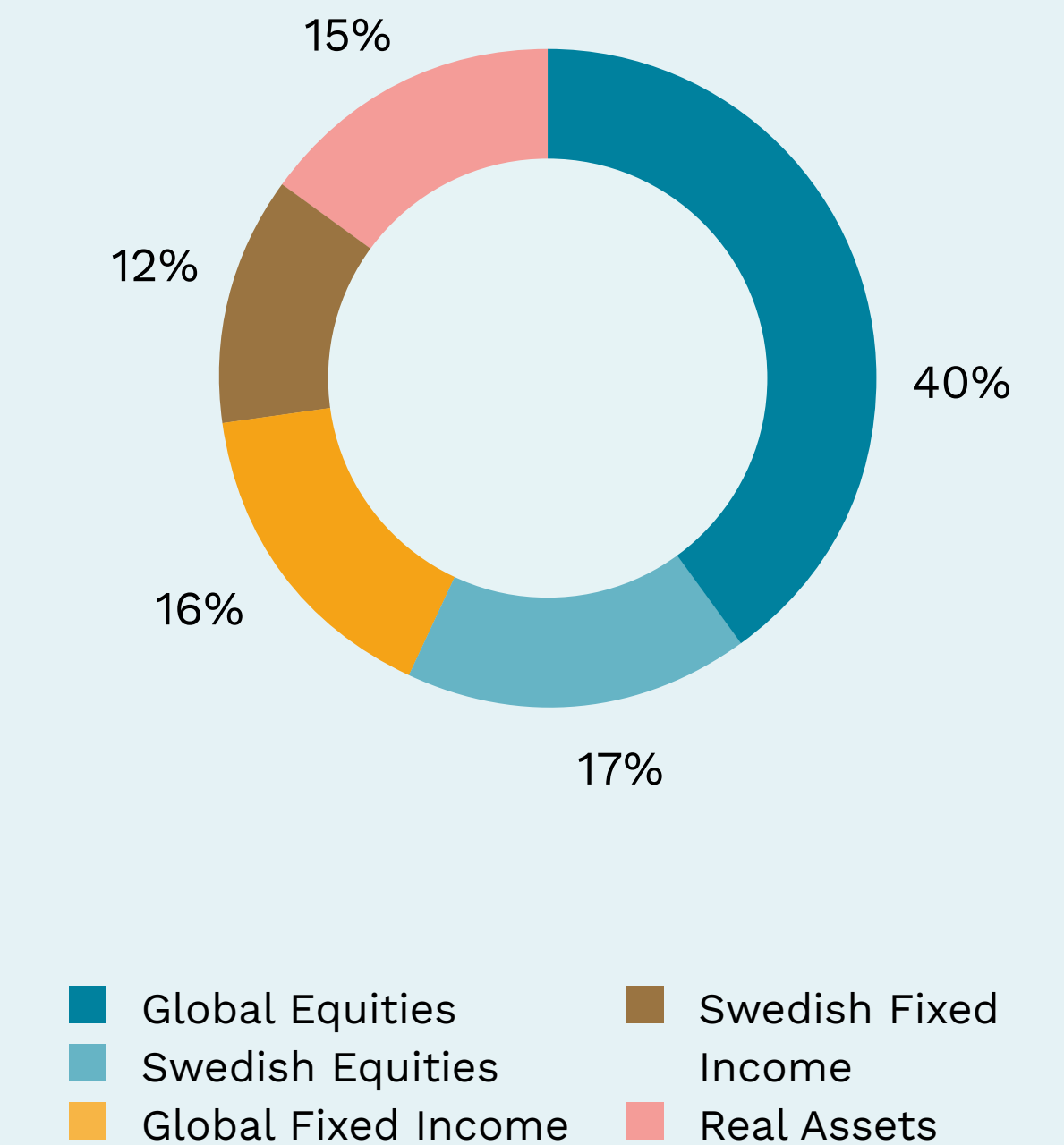
Every three years an ALM (Asset Liability Management) analysis is conducted of AP4's obligations in the pension system to determine AP4's long-term return target and contribute to an understanding of the suitable long-term allocation to equities, currency exposure and average duration of fixed

income investments. In this analysis AP4 strives to strike a balance between the anticipated return and risk that best contributes to a strengthening of the pension system while at the same time limiting the risk for reductions of outgoing pension payments through activation of the so-called brake. In this work, consideration is also given to ensuring that one generation of pensioners does not benefit at the expense of another. An updated analysis of the pension system's assets and liabilities was conducted in 2020, which led to a reduction of AP4's long-term real return target over 40 years to 3.5% from 4.0%, effective starting in 2021. The long-term range for AP4's equity allocation has remained unchanged at 50%-70%, which is believed will ensure 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 of a number of asset classes represented by various market indexes – where such relevant indexes exist – such as for liquid and listed equities and fixed income investments.

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

Asset allocation as per 31/12/2021



returns and diversification of risk, and are suitable components in the portfolio for a long-term investor such as AP4. In the DNP, Real Assets are represented by an annual required real rate of return equal to the CPI plus three percentage points.

AP4's long-term mission and the higher expected return for equities compared with government bonds justifies a higher allocation to equities. Listed equities, broken down into global and Swedish, accounted for 56.6% (55.2%) of assets at year-end. AP4 has a relative high exposure to Sweden in equities and fixed income investments, which is motivated partly by higher expected returns in relatively to many other markets and partly to favourable opportunities for AP4 to generate excess returns, as well as to lower currency hedging costs.

Defensive Equities new asset class in the DNP in 2022

Ahead of 2022 a new asset class, Defensive Equities, has been added to the DNP. This new asset class makes up 5% of the DNP and is being financed through reduced weightings of fixed income investments by 3 percentage points and global equities by 2 percentage points. The change will be implemented during 2022.

Operative portfolio

The total return for AP4 was 19.3% (9.7%) before costs and 19.2% (9.6%) after costs. The portfolio's return is evaluated in relation to the Dynamic Normal Portfolio (DNP). For 2021 the active return was 3.5 (2.4) percentage points. Over the five-year evaluation period, the average excess return was 2.3% (1.8%) per year.¹

¹ For the period 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.

Asset class	Market value, SEK bn	Portfolio return, ³ %	Exposure, ¹ %	Return contribution, ³ %	Net result contribution, ³ SEK bn
Global Equities	209.7	21.4	39.7	8.5	37.7
Swedish Equities	88.7	35.7	16.8	5.6	25.0
Global Fixed Income	85.7	-0.5	16.2	-0.1	-0.4
Swedish Fixed Income	62.0	-0.1	11.8	0.0	-0.1
Real Assets	81.5	24.1	15.4	3.4	15.2
Other Assets ²	0.0	-0.1	0.0	-0.1	-0.6
Currencies	0.0	1.8	0.0	2.0	9.0
TOTAL INVESTMENTS³	527.6	19.3	100.0	19.3	85.9

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 19.2% (9.6%) for the operative portfolio. The net result contribution after costs was SEK 85.7 billion (39.3) for the operative portfolio.

Management of asset classes

The various asset classes' market values and exposures at year-end 2021, the portfolio return and the return and result contributions are reported in the table above.

Currency exposure

AP4 hedges certain foreign assets. Currency exposure, i.e., the share of assets in foreign currency that is not neutralised through currency hedges, was 20.9% (21.0%) of total at year-end. The return contribution from AP4's open currency exposure was 1.8 percentage points (-2.1). Over a five-year period, AP4's open currency exposure has contributed an average of 0.3 percentage points (0.4) 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 -0.1 percentage point (-0.0).

Share of internal and external asset management

At year-end 2021, 84% (86%) of assets were managed internally, and 16% (14%) 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.

Portfolio risk

Portfolio risk for the operative portfolio at year-end 2021, measured with a 12-month historical standard deviation, decreased to 6.1% (13.6%) in relation to the preceding year. This decrease in portfolio risk in 2021 is attributable to the exceptionally turbulent market development resulting from the Covid-19 pandemic in 2020, with stock market declines during the first quarter and thereafter a strong recovery during the rest of the year. In 2021, portfolio performance was more stable, which explains the lower portfolio risk. Using daily changes in market movements as a measure of risk is standard practice, but risks being misleading owing to AP4's long investment horizon.

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 1.9% (1.7%) at year-end.

Open currency exposure in the operative portfolio in 2021 was between 19.0% (16.7%) and 21.8% (21.0%) and consisted mainly of exposure to USD. At year-end, open currency exposure was 20.9% (21.0%).

Interest rate risk, measured in terms of modified duration, fluctuated between 3.3% (3.6%) and 4.5% (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 4.1% (3.9%).

The share of listed AAA¹ credit risk classified bonds decreased during the year and was 59% (63%) of the fixed income portfolio at year-end. The share of BBB1-rated bonds at year-end was 21% (24%).

Exposure to issuers

AP4's ten largest exposures to issuers together amounted to slightly more than SEK 118 billion (118). Of these, 33% (40%) consisted of sovereign exposures and 16% (28%) consisted of exposures to the banking and financial sector. AP4's sovereign exposures with a credit risk classification below AAA¹ in the euro zone decreased slightly compared with the preceding year-end. The ten largest holdings in banking and the financial sector represented a combined exposure of SEK 47 billion (48).

Management costs

AP4's total management cost was 0.08% (0.09%), 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 0.05% (0.06%). AP4's commission expense ratio was 0.03% (0.03%).

¹ The credit risk classification presented (rating) pertains to an internal standard. The assessment in this standard for 2021 is based on the rating issued by the selected rating agency (Moody's Analytics UK Ltd).

Several-year overview	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Fund capital (SEK bn)	527.6	449.4	418.0	349.3	356.6	333.9	310.0	294.9	259.7	229.6	210.0
Net flows to the pension system (SEK bn)	-7.5	-7.9	-6.5	-6.8	-7.4	-6.6	-4.9	-5.1	-6.9	-3.8	-1.2
Net result for the year (SEK bn)	85.7	39.3	75.2	-0.5	30.1	30.5	20.1	40.2	37.0	23.4	-1.6
Return, total portfolio before costs (%)	19.3	9.7	21.8	-0.1	9.2	10.1	6.9	15.8	16.5	11.3	-0.7
Return, total portfolio after costs (%)	19.2	9.6	21.7	-0.2	9.1	10.0	6.8	15.7	16.4	11.2	-0.7
Return, total portfolio after costs, annualised 5 yrs (%)	11.6	9.8	9.3	8.1	11.5	12.0	9.7	10.5	11.6	3.3	1.6
Return, total portfolio after costs, annualised 10 yrs (%)	11.8	9.7	9.9	9.9	7.3	6.7	6.7	7.6	7.2	7.2	4.1
Standard deviation ex-post, total portfolio (%) ²	6.1	13.6	5.3	6.4	4.1	7.3	8.8	6.0	5.6	5.6	9.2
Sharpe ratio total portfolio, ex-post (%) ²	3.2	0.7	4.2	0.1	2.5	1.5	0.8	2.5	2.8	1.8	neg
Asset management costs, excl. commission expenses (%)	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.08	0.08	0.08
Asset management costs incl. commission expenses (%)	0.08	0.09	0.10	0.10	0.10	0.10	0.11	0.11	0.11	0.10	0.10

² Refers to daily return data.

Management costs	2021	2020
Operating expenses, SEK m	247	246
Commission expenses, SEK m	158	138
Operating expense ratio, % ³	0.05	0.06
Operating expense ratio, % ⁴	0.08	0.09

³ Operating expenses as a percentage of average fund capital.

⁴ Operating expenses including commission expenses as a percentage of average fund capital.

Collaboration between the AP Funds

The AP Funds' (AP1, AP2, AP3, AP4 and AP7) Collaboration Council was established to enable better and more effective cooperation in areas outside of the investment operations or in areas where there is not a risk that competition between the AP Funds will be impeded. The Council's work is conducted through nine functionally organised collaboration groups with the overarching focus to identify areas in which there is clear potential for collaboration and where cooperation between the AP Funds can result in greater cost efficiency for the Swedish pension system. A further purpose of the Funds' collaboration is to capitalise on the value added that is created from the sharing of experiences and knowledge-sharing which, taken together, can give the AP Funds a broader and larger knowledge base.

The Collaboration Council's role

The Collaboration Council is a gathering body whose overarching role is to ensure collaboration between the AP Funds and create conditions for this. In order to achieve this, the Collaboration Council has established a joint structure and work methodology with yearly plans that are followed up twice a year. The Council is also responsible for reporting the groups' continuing work and results to relevant stakeholders. At the end of the year this work is summarised in a report to the CEOs of the respective AP Funds, which is also used as documentation for the government's yearly evaluation of the AP Funds.

Collaboration is conducted in the following areas:

- Back Office/Business Support
- Compliance
- HR
- IT
- Legal Affairs
- Communication
- Accounting
- Risk and Performance
- System Administration

In addition to these functionally organised groups, collaboration is also conducted through the Council on Ethics of the AP Funds (AP1, AP2, AP3 and AP4) and the Innovation Forum (AP1, AP2, AP3, AP4 and AP7). The Innovation Forum aims to meet future requirements for technical solutions that can improve the efficiency of the AP Funds' operations both in asset management and administration, among other things through trend analysis in technology and design of processes.

Collaboration projects in 2021

During 2021 the collaboration groups continued their work by using digital platforms such as Teams and Zoom to meet and share information. These digital forums have facilitated even more effective collaboration and interaction. For large collaboration groups, such as Back Office/Business Support, digital work methods have made it possible for more people from the respective AP Funds to participate in trainings, information meetings and discussions.

Several aspects of the Covid-19 situation have resulted in quite a bit of sharing of experiences between the AP Funds, including how the return to offices after the pandemic has worked. Another area in which the AP Funds continually collaborate is on procurement and evaluation of products and services. During 2021 a joint procurement was conducted of recruitment services, procurement services, healthcare insurance and occupational pension insurance advice and administration. The AP Funds have also cooperated on procurement of communication services for the Council on Ethics of the AP Funds.

Cooperation has also covered the establishment of joint investment structures between certain of the AP Funds, such as the company 4 to 1 Investments, as well as cooperation on international tax matters. In the IT area, the AP Funds have collaborated on information security, where AP1, AP3 and AP4 have started procurement of a Chief Information Security Officer (CISO) function to strengthen work on information security. In addition, AP3 and AP4 together conducted a need analysis and produced documentation ahead of procurement of a new portfolio management system.

Changes in personnel and remuneration

Employee turnover at AP4 was 14% (3%) in 2021. At year-end the number of employees was 67 (65).

In spring 2021 AP4's Chair of the Board, Sarah McPhee, left her seat and was succeeded by Britta Burreau.

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 competent 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 executive management 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 executive management. 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, executive management, the CFO 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 net result for the financial year. Other benefits are of limited value and are offered to all employees. Examples include healthcare insurance, group insurance and a wellness subsidy. AP4 also has ten parking spaces that employees could use during the year without any benefits taxation owing to a temporary tax exemption for access to free parking at the workplace in connection with Covid-19. 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 2021 that require disclosure.

Income statement

SEK million	Note	2021	2020
OPERATING INCOME			
Net interest income	2	1,190	1,489
Dividends received		5,534	5,002
Net income, listed shares and participations	3	62,111	39,246
Net income, unlisted shares and participations	4	11,509	1,940
Net income, fixed income assets		-1,955	2,829
Net income, derivative instruments		-876	280
Net income, changes in exchange rates		8,600	-11,079
Commission expenses	5	-158	-138
Total operating income		85,955	39,569
OPERATING EXPENSES			
Personnel costs	6	-154	-155
Other administrative expenses	7	-93	-91
Total operating expenses		-247	-246
NET RESULT FOR THE YEAR		85,708	39,323

Balance sheet

SEK million	Note	31/12/2021	31/12/2020
ASSETS			
Shares and participations, listed	8, 19	340,224	274,032
Shares and participations, unlisted	9, 18, 19	68,538	48,017
Bonds and other fixed income assets	10, 19	118,642	110,325
Derivative instruments	11, 19, 21	1,806	12,628
Cash and cash equivalents		4,671	5,112
Other assets	12, 21	778	1,201
Prepaid expenses and accrued income	13	837	815
TOTAL ASSETS		535,496	452,130
LIABILITIES AND FUND CAPITAL			
Liabilities			
Derivative instruments	11, 21	6,889	1,408
Other liabilities	14, 21	731	1,075
Prepaid income and accrued expenses	15	247	198
Total liabilities		7,867	2,681
Fund capital			
Fund capital, opening balance	16	449,449	418,028
Net payments to the pension system		-7,528	-7,902
Net result for the year		85,708	39,323
Total fund capital		527,629	449,449
TOTAL LIABILITIES AND FUND CAPITAL		535,496	452,130
Pledged assets, contingent liabilities and commitments	17, 18		

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 2021 financial year was approved by the Board of Directors on 22 February 2022. 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, entailing that the assets that the AP Funds invest in shall be recognised at market value. Based on this principle, 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. Compared with 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, 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 lines Net income for the various asset classes thus include realised and unrealised gains or losses. Equity instruments and debt instruments are held for trading and 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 provider, 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. The value of holdings in unlisted property companies takes into account deferred tax liabilities at the value used for property transactions, which differs from the valuation 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, changes in exchange rates".

Derivative instruments

For derivative instruments, fair value is 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, 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

Loaned securities 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 collateral, 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 loaned securities 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

	2021	2020
Net interest income		
Bonds and other fixed income assets	1,156	1,429
Other interest income	34	60
Total interest income	1,190	1,489
Interest expense		
Other interest expenses	0	0
Total interest expense	0	0
NET INTEREST INCOME	1,190	1,489

3 Net income, listed shares and participations

	2021	2020
Net income, listed shares and participations	62,156	39,301
Less brokerage fees	-45	-55
NET INCOME, LISTED SHARES AND PARTICIPATIONS	62,111	39,246

4 Net income, unlisted shares and participations

	2021	2020
Realised gains	583	97
Unrealised changes in value	10,926	1,843
NET INCOME, UNLISTED SHARES AND PARTICIPATIONS	11,509	1,940

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 168 (114) million was paid in asset management fees for unlisted assets, of which SEK 168 (114) million qualifies for refunds. Also during the year, SEK 24 (20) million was refunded, and the unrealised result for unlisted shares and participations was thereby negatively affected by SEK 144 million (-94).

5 Commission expenses

	2021	2020
External asset management fees, listed assets	-143	-123
Other commission expenses, including custodian fees	-15	-15
COMMISSION EXPENSES	-158	-138

Commission expenses do not include performance-based fees. Performance-based fees for the year totalled SEK 166 (96) million and reduced net income for the respective asset classes.

6 Personnel

	2021		2020	
	Total	Women	Total	Women
Number of employees				
Average number of employees	62	23	61	22
Number of employees, 31 December	67	26	65	26
Number of persons in Executive Management, 31 December	7	3	7	2

Salaries and fees

Directors' fees are set by the government and were increased most recently in 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, executive management, the CFO 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 executive management of AP4. The Board can thereby ascertain that AP4 complies with the government's guidelines for remuneration of executive management of the AP Funds. Read more about remuneration in the Fund Governance Report.

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 except for the CEO, executive management, the CFO and the respective heads of Risk Control and Compliance. The basic principle is that variable remuneration is payable 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 2021, a total of SEK 7,677 thousand (6,045) 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, the employee has the right to remain in service until the end of the month in which he turns 68.

Starting in 2023, pursuant to the Employment Protection Act (Lag om anställningsskydd – LAS), employees have the right to remain in service until the end of the month in which they turn 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 Organisa-

tion 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 cost 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 healthcare insurance, a benefit for which they are taxed in accordance with the tax rules that apply at any given time. Employees hired 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 healthcare insurance and group life insurance, which are taxed as employment benefits. AP4 currently has ten parking spaces that employees may use, for which they are normally taxed for the benefit of, but since spring 2020 a temporary tax exemption has been in effect for access to free parking at the workplace. The aim of the tax exemption is to enable employers to offer free parking to employees who must get themselves to and from work during the ongoing pandemic and thereby prevent transmission of Covid-19. The total value of this employment benefit in 2021 was SEK 349 thousand (314).

6 Cont. Personnel

Personnel costs, SEK thousand, 2021	Salaries and remuneration	Variable remuneration	Pension costs	Of which, salary exchange	Social security costs ²	Total
Chair Sarah McPhee, through 26/5/2021	83	-	-	-	9	92
Chair Britta Burreau, from 27/5/2021	117	-	-	-	37	154
Other board members ¹	950	-	-	-	195	1,145
CEO Niklas Ekvall	3,996	-	2,407	933	1,839	8,242
Other members of the Executive Management						
Head of Fundamental Equities Per Colleen ³	3,048	-	1,322	240	1,278	5,648
Head of Risk & Business Support Nicklas Wikström	1,730	-	1,020	360	791	3,541
General Counsel Theresa Einarsson	1,320	-	1,012	333	660	2,992
Head of Sustainability, Finance & Communication Tobias Fransson	2,203	-	889	-	908	4,000
Head of Strategic Allocation & Quantitative Analysis Marcus Blomberg, through 12/9/2021	2,344	-	730	-	914	3,988
Head of Strategic Allocation & Quantitative Analysis Magdalena Högberg, from 25/9/2021	575	-	130	-	212	917
Head of Alternative Investments Jenny Askfelt Ruud	2,167	-	766	-	867	3,800
Other employees	63,693	7,677	18,134	2,204	26,702	116,206
Total	82,226	7,677	26,410	4,070	34,412	150,725
Other personnel costs						2,864
TOTAL PERSONNEL COSTS						153,589

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

² Social security costs also include payroll tax.

³ Jannis Kitsakis succeeded Per Colleen in the role as Head of Fundamental Equities at the start of 2022.

Personnel costs, SEK thousand, 2020	Salaries and remuneration	Variable remuneration	Pension costs	Of which, salary exchange	Social security costs ²	Total
Chair 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 members of the Executive Management						
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.

7 Other administrative expenses

	2021	2020
Cost of premises	11	11
Information and IT costs	63	62
Purchased services	12	11
Other administrative expenses	7	7
TOTAL OTHER ADMINISTRATIVE EXPENSES	93	91

The item purchased services includes fees paid to the accounting firm as follows:

	2021	2020
Audit assignment, PwC	1.0	1.0
Other audit services, PwC	0.0	0.0
TOTAL FEES PAID TO ACCOUNTING FIRM	1.0	1.0

8 Shares and participations, listed

	31/12/2021 Fair value	31/12/2020 Fair value
Swedish shares	124,344	90,133
Foreign shares	153,710	126,835
Participations in Swedish funds	1,132	928
Participations in foreign funds	61,038	56,136
TOTAL SHARES AND PARTICIPATIONS, LISTED	340,224	274,032

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

8 Cont. Shares and participations, listed

Five largest holdings of Swedish shares

31/12/2021	No. shares	Fair value	Capital, %	Votes, %
Getinge AB	20,285,925	8,015	7.45	4.65
Lifco AB	28,526,006	7,722	6.28	3.92
Atlas Copco AB	10,674,408	5,941	0.87	0.41
Sagax AB	26,294,817	5,298	5.90	3.83
Medicover AB	13,792,326	5,103	9.08	9.08

31/12/2020

Lifco AB	5,731,869	4,522	6.31	3.94
Getinge AB	22,486,987	4,320	8.26	5.15
Atlas Copco AB	10,657,768	4,075	0.87	0.41
Hennes & Mauritz AB	22,211,572	3,820	1.34	0.65
Sagax AB	30,710,010	3,445	6.65	4.37

Five largest holdings of foreign shares

31/12/2021	No. shares	Fair value
Apple Inc	4,311,957	6,932
Microsoft Corp	1,826,137	5,561
Alphabet Inc	150,083	3,934
Amazon.Com Inc	118,120	3,566
Meta Platforms Inc	603,891	1,839

31/12/2020

Apple Inc	5,109,136	5,568
Microsoft Corp	2,103,817	3,843
Amazon.Com Inc	125,327	3,352
Alphabet Inc	177,414	2,553
Facebook	708,965	1,590

9 Shares and participations, unlisted

	31/12/2021 Fair value	31/12/2020 Fair value
Shares in Swedish associated companies	45,217	34,176
Shares in foreign associated companies	977	915
Shares and participations in other Swedish unlisted companies	7,943	5,894
Shares and participations in other foreign unlisted companies	14,401	7,032
TOTAL SHARES AND PARTICIPATIONS, UNLISTED	68,538	48,017

Shares in associated companies, 31/12/2021	Corporate identity number	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	25,253	85,290	16,421
Rikshem Intressenter AB	556806-2466	Stockholm	250	50	50	16,198	28,991	5,919
Polhem Infra KB	969789-2413	Stockholm	-	33	33	2,847	8,541	405
4 to 1 Investments KB	969795-3033	Stockholm	-	25	25	828	3,314	0
Cinder Invest AB	559256-2630	Stockholm	10,000	20	20	90	0	0
4 to 1 Investments AB	559313-2490	Stockholm	6,250	25	25	1	2	1
Polhem Infra AB	559183-3917	Stockholm	20,000	33	33	0	1	1
AP4 Investment AB	559130-3929	Stockholm	50,000	100	100	0	0	0
TOTAL SHARES IN SWEDISH ASSOCIATED COMPANIES						45 217		
Shares in foreign associated companies								
ASE Holdings II S.à.r.l.		Luxembourg	229,275,476	45	45	484	Not public	Not public
ASE Holdings III S.à.r.l.		Luxembourg	20,399,153	35	35	355	Not public	Not public
ASE Holdings S.à.r.l.		Luxembourg	1,609,214	38	38	138	Not public	Not public
TOTAL SHARES IN FOREIGN ASSOCIATED COMPANIES						977		

Other holdings, 31/12/2021	Corporate identity number	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	809
Alfvén & Didrikson AB	556954-4066	Stockholm	32	17	555
Areim Investment 3-5 AB	559111-1165	Stockholm	19	3	526
Areim Fastigheter 4 (Eq) AB	559168-0979	Stockholm	16	5	489
Five largest holdings in other shares and foreign unlisted companies¹					
Infrastructure Alliance Europe 1 SCSp		Luxembourg	25		1,246
Generation IM Sustainable Solutions Fund III (B), L.P. Guernsey		Guernsey	15		1,046
Generation IM Long-term Equity Fund (EUR), SCSp		Luxembourg	27		896
White Peak Real Estate IV L.P.		Jersey	24		887
EQT Infrastructure IV (No. 1) EUR SCSp		Luxembourg	2		790

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, 31/12/2020	Corporate identity number	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	Corporate identity number	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 and 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.

10 Bonds and other fixed income assets

	31/12/2021 Fair value	31/12/2020 Fair value
Breakdown by issuer category		
Swedish state	-	0
Swedish mortgage institutions	26,375	25,741
Other Swedish financial services companies	4,730	8,928
Swedish non-financial companies	922	769
Foreign governments	62,138	58,185
Other foreign issuers	24,477	16,702
TOTAL BONDS AND OTHER FIXED INCOME ASSETS	118,642	110,325
Breakdown by type of instrument		
Other bonds	110,294	104,141
Subordinated loans	3,543	3,807
Unlisted shareholder loans	925	789
Participations in foreign fixed income funds	3,360	1,242
Other instruments	520	346
TOTAL BONDS AND OTHER FIXED INCOME ASSETS	118,642	110,325

The scope of loaned securities as well as collateral received is presented in Note 17.

11 Derivative instruments

	31/12/2021 Fair value		31/12/2020 Fair value	
	Positive	Negative	Positive	Negative
Interest-related instruments:				
Swaps	1	-	7	-
Total interest-related instruments	1	-	7	-
Currency-related instruments				
Options	674	537	1,280	944
Forward contracts	271	5,863	8,900	464
Swaps	860	489	2,441	-
Total currency-related instruments	1,805	6,889	12,621	1,408
TOTAL DERIVATIVE INSTRUMENTS	1,806	6,889	12,628	1,408

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

11 Cont. Derivative instruments

Maturity analysis

Most of the AP4's derivatives have maturities of less than one year. Only a few currency options and cross currency basis swaps have longer terms, and of these 20 (18) 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, 2021

Maturity structure Term	> 1 < 3 yrs	> 3 < 5 yrs	> 5 < 10 yrs	> 10 yrs
Issued currency options	-43	-	-	-
Cross Currency Basis Swap	-	-80	-327	-
TOTAL	-43	-80	-327	-

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

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

12 Other assets

	31/12/2021	31/12/2020
Outstanding receivables	770	1,197
Other assets	8	4
TOTAL OTHER ASSETS	778	1,201

13 Prepaid expenses and accrued income

	31/12/2021	31/12/2020
Accrued interest income	505	569
Accrued dividends and repayments	323	234
Other prepaid expenses and accrued income	9	12
TOTAL PREPAID EXPENSES AND ACCRUED INCOME	837	815

14 Other liabilities

	31/12/2021	31/12/2020
Accounts payable	12	7
Outstanding liabilities	712	1,061
Other liabilities	7	7
TOTAL OTHER LIABILITIES	731	1,075

15 Prepaid income and accrued expenses

	31/12/2021	31/12/2020
Accrued interest expenses	122	174
Accrued personnel costs	22	18
Accrued external asset management fees	96	0
Other accrued expenses	7	6
TOTAL PREPAID INCOME AND ACCRUED EXPENSES	247	198

16 Fund capital

	31/12/2021	31/12/2020
FUND CAPITAL, OPENING BALANCE	449,449	418,028
NET PAYMENTS TO THE PENSION SYSTEM		
Paid-in pension contributions	75,597	73,872
Pension funds disbursed to the Swedish Pensions Agency	-82,885	-81,564
Transfer of pension rights to EG	-1	-2
Settlement of pension rights	-3	2
Administration fees to the Swedish Pensions Agency	-236	-210
TOTAL NET PAYMENTS TO THE PENSION SYSTEM	-7,528	-7,902
NET RESULT FOR THE YEAR	85,708	39,323
FUND CAPITAL, CLOSING BALANCE	527,629	449,449

17 Pledged assets, contingent liabilities and commitments

	31/12/2021	31/12/2020
OTHER PLEDGED ASSETS AND EQUIVALENT COLLATERAL		
Securities on loan against collateral received in the form of securities ¹	24,095	25,385
Collateral pledged for exchange-cleared derivative contracts	4,304	2,631
Pledged assets pertaining to OTC derivative contracts ²	6	14
COMMITMENTS		
Investment commitments for future payments for alternative and strategic investments	24,412	22,049
Subscription commitments, see Note 18	9,500	9,500

¹ Collateral received for loaned securities amounts to SEK 24,969 million (26,528).

² Collateral received for OTC derivative contracts amounted to SEK 260 million (10,377).

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 executive management, see Note 6. All associated companies are considered to be related parties to AP4, see also Note 9.

	31/12/2021	31/12/2020
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

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

18 Cont. Related parties

	31/12/2021	31/12/2020
ASE Holdings S.à.r.l.		
Interest income	-	-
Shareholder loans	245	225
ASE Holdings II S.à.r.l.		
Interest income	33	31
Shareholder contributions during the year	17	-
Shareholder loans	422	362
ASE Holdings III S.à.r.l.		
Interest income	19	15
Shareholder contributions during the year	34	18
Shareholder loans	250	195
Polhem Infra AB		
Shareholder contributions during the year	0	0
Polhem Infra KB		
Contributions during the year	2,320	90
Cinder Invest AB		
Shareholder contributions during the year	88	12
4 to 1 Investments AB		
Shareholder contributions during the year	1	-
4 to 1 Investments KB		
Contributions during the year	828	-

19 Financial instruments, price and valuation hierarchy

Fair value, SEK m	31/12/2021 Level 1	31/12/2021 Level 2	31/12/2021 Level 3	31/12/2021 Total
Financial assets				
Shares and participations, listed	290,139	46,172	3,913	340,224
Shares and participations, unlisted	-	-	68,538	68,538
Bonds and other fixed income assets	113,821	537	4,284	118,642
Derivative instruments	-	1,806	-	1,806
Total financial assets	403,960	48,515	76,735	529,210
Financial liabilities				
Derivative instruments	-	-6,889	-	-6,889
Total financial liabilities	-	-6,889	-	-6,889
NET FINANCIAL ASSETS AND LIABILITIES	403,960	41,626	76,735	522,321

Changes in Level 3	Shares and participations, unlisted	Shares and participations, listed	Bonds and other fixed income investments
Opening balance, 1/1/2021	48,017	4,029	2,032
Invested	10,300	35	1,809
Sold/repaid	-937	-562	-149
Realised change in value	643	11	0
Unrealised change in value	10,481	400	593
Transfers from Level 1 or 2	34	-	-
Transfers to Level 1 or 2	-	-	-
Closing balance, 31/12/2021	68,538	3,913	4,284

Fair value, SEK m	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 assets	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	-	-1,408	-	-1,408
NET FINANCIAL ASSETS AND LIABILITIES	332,803	56,715	54,076	443,594

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
Invested	3,065	1	601
Sold/repaid	-500	-636	-3
Realised change in value	122	10	0
Unrealised change in value	2,433	434	-1,156
Transfers from Level 1 or 2	-	-	-
Transfers to Level 1 or 2	-	-	-
Closing balance, 31/12/2020	48,017	4,029	2,032

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 77% 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. These include unlisted shares and shareholder loans in directly held property companies and unlisted shares in private equity firms and funds. For private equity firms and funds, 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 central importance, but assumptions about factors such as vacancies, operating costs, market and profit growth are also of great importance. For private equity firms and funds, 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 entails a conservative valuation and vice versa. A sensitivity analysis of Vasakronan, AP4's largest property holding, with a fair value of shares and participations of SEK 25.3 billion, i.e., nearly 40% 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 -2.7/+3.1 billion.

For valuation of AP4's investments in private equity firms and funds reported in unlisted shares, corresponding to SEK 20.2 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 +/- 2,523 million. Valuation of AP4's high-yield fixed income assets reported in listed shares, corresponding to SEK 7.8 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 +/- 156 million.

20 Risks

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 risks as well as IT and information security risks. 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 risk 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. Separate evaluations of key external parties to AP4, such as custodian banks and IT operations vendors, are conducted yearly. With respect to investments in unlisted assets, investment decisions are made by the CEO in an internal finance committee. Prior to such an investment decision, both commercial and operational due diligence are conducted.

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 follow-ups on a regular basis to ensure compliance with the joint risk management methodology for operational risks for all identified processes in AP4.

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 to forecast risk premiums.

Market risk

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 fixed income markets. AP4 manages interest rate risk through diversification across regions and yield curves.

Following the financial crisis in 2008/2009, regulators around the world have increased their requirements for how benchmark interest rates are set. This has entailed, among other things, that a decision has been made to replace LIBOR, the interbank rate traded in London, with alternative rates. LIBOR has been replaced by SONIA for GBP, by TONA for JPY, and by SARON for CHF as from 31 December 2021. The USD LIBOR will be replaced by SOFR as from 30 June 2023.

As per 31 December 2021 AP4 had no investments in fixed income securities with couplings to the benchmark rates that have been replaced. Via derivative instruments, as per 31 December 2021, AP4 had SEK 0.3 billion in exposure with reference to USD LIBOR, where the maturity is after 30 June 2023. These instruments have not yet been updated to the new SOFR benchmark rate.

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).

Real estate price risk

By real estate price risk is meant the expected variation in the market value of real estate. Real estate price risk is managed through diversification of property types, such as office, residential, industrial, etc., and of regions, mainly within Sweden but also via other countries

Risk in investments

Value at Risk (VaR) is used as a metric to calculate financial risk. 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, a time period of 10 days and 95% confidence level are used, unless stated otherwise.

20 Cont. Risks

Asset classes, 31/12/2021	VaR, ex-ante, holding period 10 days	Contribution volatility % 12-month portfolio	VaR, ex-ante, holding period 1 day ²
Global Equities ¹	8,837	6.2	1,562
Swedish Equities	4,944	3.4	941
Global Fixed Income Instruments ¹	28	0.0	9
Swedish Fixed Income Instruments	4	0.0	2
Real Assets ¹	3,313	2.3	276
Currency and other	-305	-0.2	-46
TOTAL INVESTMENTS	16,821	11.7	2,744

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

¹ For some of AP4's assets, market quotations of asset prices with good periodicity are not available, or underlying holdings of an index are also missing, which makes it difficult to prognosticate the risks for these assets in a satisfactory manner in AP4's risk system, Barra. AP4 has therefore chosen to use alternative listed securities or other approximations for these holdings. Approximations have been used for a total of 14.5% of assets. Approximations have been made as follows. For unlisted real assets, corresponding to 11.1%, an aggregate weighting of three factors has been used: an equity factor, a real estate factor, and cash. For unlisted equities and high-yield fixed income instruments, corresponding to 3.5%, a European equity index and European high-yield index have been used, respectively.

² To enable comparisons with AP1, AP2 and AP3, AP4 has also estimated Value at Risk (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 VaR risk metric 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.

20 Cont. Risks

Currency exposure

31/12/2021	USD	JPY	KRW	INR	TWD	GBP	Other	Total
Shares and participations	130,463	10,727	4,187	4,215	5,258	9,430	67,524	231,804
Bonds and other fixed income assets	41,539	10,143	-	-	-	5,741	27,169	84,592
Derivative instruments, excl. currency derivatives	0	0	-	-	-	-	1	1
Other receivables and liabilities, net	7,086	780	1	-	-	768	-2,969	5,666
Currency derivatives	-112,344	-14,829	497	192	-1,761	-12,492	-71,180	-211,917
CURRENCY EXPOSURE, NET	66,744	6,821	4,685	4,407	3,497	3,447	20,545	110,146

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	-	-	6,627	76,621
Derivative instruments, excl. currency derivatives	6	7	-	-	-	-	0	13
Other receivables and liabilities, net	1,220	1,126	586	329	1	-	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

AP4 hedges investments using currency derivatives to control AP4's open currency exposure. AP4's open currency exposure at year-end was 20.9% (21.0%). AP4's currency exposure is shown in the table above.

20 Cont. Risks

Credit risk

Credit risk refers to the risk that an issuer or counterparty cannot meet its payment obligations. Credit exposure refers to the value that is exposed to credit risk through contracts 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 DNP 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 conduct transactions (in both standardised and non-standardised instruments). Further, when trading in OTC derivatives, ISDA and CSA agreements must exist for all large counterparties.

Rating classes ¹ , 31/12/2021	Bonds, ² exposure	Non-standardised derivatives		Residual risk
		Fair value ²	Collateral/security	
AAA	67,006	-	-	-
AA	8,719	-3,405	3,145	-260
A	13,791	-1,802	1,620	-182
BBB	24,313	0	175	175
BB	105	-	-	-
No rating ³	987	-	-	-
TOTAL CREDIT RISK EXPOSURE	114,921	-5,207	4,940	-267

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

¹ The credit risk classifications (ratings) presented here refer to an internal standard. The assessment in this standard for 2021 is based on the ratings issued by the selected 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.

20 Cont. Risks

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, etc.)
- 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 conduct transactions regarding both standardised and non-standardised 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 regulate how collateral is to be pledged as outstanding liabilities in the form of liquid funds or securities. CSAs refer to an annex to an ISDA Master Agreement.

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 hold a large share of liquid instruments. 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 fixed income 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, 31/12/2021, Term	<1 yr	1<3 yrs	3<5 yrs	5<10 yrs	>10 yrs	Total
Nominal government	357	27,719	15,504	17,338	3,561	64,479
Nominal corporate	1,586	25,309	15,721	7,745	81	50,442
TOTAL	1,943	53,028	31,225	25,083	3,642	114,921

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

All liabilities have terms of less than one year except for a few currency options and cross currency basis 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 are subject to netting agreements

31/12/2021	Gross amount	Netted amount on balance sheet	Net amount on balance sheet	Amounts not netted on the balance sheet			Other ¹	Total on balance sheet
				Offsetting of financial instruments under agreements	Collateral received	Net amount after offsetting		
Assets								
Derivative instruments	1,806	-	1,806	1,806	178	-178	-	1,806
Unliquidated receivables	19,168	19,059	109	-	-	109	661	770
TOTAL	20,974	19,059	1,915	1,806	178	-69	661	2,576
Liabilities								
Derivative instruments	6,889	-	6,889	1,806	4,714	369	-	6,889
Unliquidated receivables	19,257	19,059	198	-	-	198	514	712
TOTAL	26,146	19,059	7,087	1,806	4,714	567	514	7,601

31/12/2020	Gross amount	Netted amount on balance sheet	Net amount on balance sheet	Amounts not netted on the balance sheet			Other ¹	Total on balance sheet
				Offsetting of financial instruments under agreements	Collateral received	Net amount after offsetting		
Assets								
Derivative instruments	12,628	-	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	-	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

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

The table 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, 22 February 2022

Our auditors' report was submitted on February 22, 2022

Britta Burreau
Chair of the Board

Lars Åberg
Vice Chair of the Board

Helén Eliasson

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

Peter Nilsson
Authorised Public Accountant,
Appointed by the Swedish
government

Monika Elling

Henrik Rättzén

Maj-Charlotte Wallin

Ingrid Werner

Göran Zettergren

Aleksandar Zuza

Niklas Ekvall
CEO

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 2021. The Fund's annual accounts are included in the printed version of this document on pages 57-80.

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 of 31 December 2021 and of its financial performance for the year then ending according to the Swedish National Pension Funds Act. The statutory administration report is consistent with the other parts of the annual accounts. We, therefore, recommend that the income statement and balance sheet be adopted.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (ISA) and generally accepted auditing standards in Sweden. Our responsibilities according to these standards are described in more detail in the section Auditor's responsibilities below. We are independent in relation to AP4 according to generally accepted auditing standards in Sweden and have 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.

Other Information than the annual accounts

This document includes other information than the financial statements. The other information comprises the pages 1-56 and 83-104. The Board of Directors and the Managing Director are responsible for the other information.

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

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

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

Responsibilities of the Board of Directors and the Managing Director

It is the Board of Directors and Managing Director who are responsible for the preparation and fair presentation of the annual accounts in accordance with the Swedish National Pension Funds Act. The Board of Directors and Managing Director are also responsible for the internal control they deem necessary to enable the preparation of annual accounts that are free from material misstatement, whether due to fraud or error.

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

Auditor's responsibilities

Our responsibility is to obtain reasonable assurance as to whether the annual accounts and consolidated accounts as a whole are free from material misstatement, whether due to fraud or error, and to issue an Auditor's Report that includes our opinion. Reasonable assurance is a high level of assurance,

but does not comprise a guarantee that an audit conducted in accordance with ISA and generally accepted auditing standards in Sweden will always identify material misstatements should they exist. Misstatements can arise from fraud or error and are considered to be material if, individually or taken together, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual accounts.

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

- We identify and assess the risks of material misstatement in the annual accounts, whether due to fraud or error, design and execute audit procedures based on, amongst other things, these risks, and obtain audit evidence which is sufficient and appropriate to provide a basis for our opinion. The risk of not identifying a material misstatement resulting from fraud is higher than one resulting from error, as fraud can include collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.
- We obtain understanding of the internal control of the 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 a true and fair presentation.

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

Report on other legal and regulatory requirements

Opinion

In addition to our audit of the annual accounts, we have also audited the inventory of the assets managed by AP4. We have also audited to determine if there are any criticisms, in general, as regards the Board of Director's and Managing Director's management of AP4 for 2021.

The audit has shown no reason to criticize 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 organization 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 obtain audit evidence to assess with a reasonable degree of assurance if there is any criticism of the Board of Directors' and Managing Directors' administration of the AP4 for financial year 2021.

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 skepticism 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, decision-making documentation, measures taken and other circumstances relevant to our opinion on the administration.

Stockholm, 22 February 2022

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 follows the parts of the Swedish Corporate Governance Code that are relevant for AP4. The report describes AP4's statutory mission, audit and evaluation as well as the work of the Board of Directors.

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

AP4’s mission

AP4’s mission is to manage 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, AP2, AP3 and AP4 are stipulated in the Swedish 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).
- Due to Covid-19, a temporary change was made of the AP Funds’ investment rules on voting rights limitation. The rule entails that a maximum of 15% of votes may be owned in an individual listed Swedish company where the share of ownership above 10% was acquired through a new issue during the period 1 November 2020 through 30 June 2021. The previous rule stipulating a maximum 10% ownership of votes applies thereafter.
- A maximum of 40% of assets may consist of illiquid assets.
- Unlisted shares may only be owned indirectly via funds, property companies or private equity companies.

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 2021 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.

Internal audit is conducted by an externally procured accounting firm that performs a yearly risk analysis. Based on this, the Board makes decisions on reviews. During 2021 the accounting firm performed two such internal audit assignments.

External and internal rules and regulations

AP1, AP2, AP3 and AP4 have jointly prepared accounting and valuation policies which aim to ensure that they 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 Swedish 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 policies, and accounting and valuation policies
- AP4's internal policies and rules
- AP4's business plan, including the Sustainability Policy and 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 various risks are managed in a suitable manner.

Important duties of the Board 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 not counting 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 of the Board and Vice Chair of the Board from among the board members who were not nominated by the labour market parties.

The board members on 31 December 2021 were Britta Burreau (Chair), Lars Åberg (Vice Chair), Helén Eliasson, Monika Elling, Henrik Rättzén, Maj-Charlotte Wallin, Ingrid Werner, Göran Zettergren and Aleksandar Zuza. Sarah McPhee left her seat in May and was succeeded by Britta Burreau. Biographical information on AP4's directors is provided on pages 90-91. The

Board appointments apply until AP4's income statement and balance sheet for 2021 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 executive management. The committee also conducts drafting work on other matters concerning AP4's remuneration principles and other terms of employment for all employees. The members of the Remuneration Committee as per 31 December 2021 were Göran Zettergren (committee chair), Monika Elling and Helén Eliasson.

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 members of the Risk Committee as per 31 December 2021 were Lars Åberg (committee chair), Henrik Rättzén and Ingrid Werner.

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 all meetings of the Audit Committee. The members of the Audit Committee as per 31 December 2021 were Maj-Charlotte Wallin (committee chair), Henrik Rättzén and Göran Zetterberg.

Directors' fees

Directors' fees are set by the government. The full-year fee for 2021 is SEK 200,000 for the Chair of the Board, SEK 150,000 for the Vice Chair of the Board, 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.

Board meetings in 2021

	Remuneration Committee	Risk Committee	Audit Committee	Attendance/total no. meetings	Fee (SEK 000s)
Sarah McPhee, Chair (left the Board in May)				2/2	83
Britta Burreau, Chair (joined the Board in May) ¹				5/5	117
Lars Åberg, Vice Chair		x		7/7	162
Henrik Rättzén		x	x	7/7	122
Maj-Charlotte Wallin			x	7/7	111
Göran Zettergren	x		x	7/7	122
Ingrid Werner		x		7/7	111
Helén Eliasson	x			7/7	111
Monika Elling	x			6/7	111
Aleksandar Zuza				7/7	100

¹ Director's fee paid starting in June 2021.

Meetings in 2021 documented by minutes

During the 2021 financial year the Board held seven meetings at which minutes were recorded. As shown in the table below, directors' attendance was high, averaging 98%. Attendance at board meetings included, in addition to the board members, the CEO, AP4 executives in a presenting role, and AP4's General Counsel as company secretary.

In focus during 2021

In addition to its regular work areas, the focus of the Board's work in 2021 was mainly on decisions related to extensive development work during the year, including:

- Review of current asset management structure, which was established in 2017. This review covered the portfolio structure, overarching governance and documentation. One result of this review was the inclusion of the new asset class Defensive Equities in the Dynamic Normal Portfolio (DNP).
- Review and decisions on the Dynamic Normal Portfolio (DNP) for 2022. Defensive Equities will be included with a weight of 5% of the DNP, which at the same time entails a decrease in the weighting of Fixed Income Investments by 3 percentage points and of Global Equities by 2 percentage points. The change will be implemented during 2022.
- Continued development of the portfolio's carbon strategies and fundamental company selection in resource-intensive sectors based on an assessment of the respective companies' climate transitions. During 2020, companies in the energy sector were addressed. In 2021, companies in the utilities and materials sectors were analysed, and the portfolio holdings were restructured based on the extent to which the companies' transition targets and ambitions were considered to be in line with the Paris Agreement.
- Preparation work ahead of a decision on future portfolio management systems.

Risk management at AP4

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

Risk management in three steps

To achieve its set return targets, AP4 must take well considered risks in its asset management. 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 – risk tolerance framework
2. Continuous risk management
3. Monitoring and control

Step 1. Risk governance – risk tolerance framework

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 also 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 that has been jointly procured by the AP Funds, which performs a yearly risk analysis, and based on this the Board makes decisions on reviews. In 2021 an external accounting firm performed two such internal audit assignments.

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 risk-taking with the help of stress tests and various scenario analyses. Operational risks at AP4 are to be managed through an established joint-Fund process and methodology. In the day-to-day activities all managers and employees are to 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: Back Office, IT, Risk & Systems, and Risk Control. 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-Fund 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 gradation 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 public pension funds requires that remuneration levels for the employees, including the CEO, are reasonable, justifiable and explainable. In general AP4 strives to ensure that remuneration levels on the whole are in line with the market and enable 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 for 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 executive management 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 serves in an advisory, oversight and drafting role for the Board for remuneration matters concerning the CEO and executive management 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 executive management 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 internal 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.

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, executive management, the CFO 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 achieves 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 healthcare insurance, group insurance and a wellness 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 were able to use in 2021 without any benefits taxation owing to temporary tax exemption for access to free parking at the workplace as part of the Covid-19 response.

Notice periods and 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.

Read more about remuneration in Note 6.

The Board's follow-up of salaries in 2021 for all permanent-status employees

During the year, the Board – with the help of external consultants – commissioned a salary survey based on the guidelines of the Discrimination Act as well as an external market comparison. The salary survey that was conducted from a gender equality perspective showed 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, where AP4's salaries were compared with salaries for equivalent positions in the financial sector in Sweden showed that AP4's salary levels are in line with both AP4's remuneration policy and the government's guidelines for terms of employment for executive management of the AP Funds. After consideration of the results of the comparative analysis, the Board could conclude that AP4 applies remuneration levels that are within set guidelines and that AP4's salaries are in line with the going rate in the market, reasonable, and justifiable without being market-leading. In addition, it was determined that, with respect to executive management, remuneration is in accordance with the guidelines for terms of employment for executive management of the AP Funds.

Board of Directors



Britta Bureau

Chair of the Board since 2021
Born 1964
M.Sc. Eng. Chalmers University of Technology,
MBA Stockholm School of Economics

Other assignments

CEO of Almi Företagspartners AB
Director: Nationalekonomiska Föreningen



Lars Åberg

Vice Chair of the Board since 2017
Born 1953
B. Sc. Econ.



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, Dynamic Code



Henrik Rättzén

Director since 2019
Born 1965
B.Sc. Econ.

Other assignments

Chair: Bosam Group Holding AB, Hedvig
Försäkring AB, Hejmo Kredit 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 Doctorate in Economics,
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, Scientific Board for the Danish Finance Institute and Research Advisory Council for Leibniz Institute for Financial Research SAFE



Göran Zettergren

Director since 2015
Born 1958
Lic. Econ.



Aleksandar Zuza

Director since 2020
Born 1975
M. Sc. Business, M. Sc. Econ.

Other assignments

Investigator at 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 with Nordea, Carnegie, AP3, Handelsbanken and the Stockholm School of Economics

Chair: Swedish House of Finance (SHoF) at the Stockholm School of Economics

Director: Vasakronan AB, Polhem Infra, Hans Dahlborgs Stiftelse för Bank- och Finansforskning, 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 with Enwise, Ratos, McKinsey & Company, Arts Alliance and Morgan Stanley



Theresa Einarsson

General Counsel
Born 1977
Employed since 2019
LL.B.

Previous positions with Apoteksgruppen, Advokatfirman Vinge, Davis Polk & Wardwell LLP and Hammarskiöld & Co



Tobias Fransson

Head of Sustainability, Finance & Communication
Born 1968
Employed since 2003
M.Sc. Econ.

Previous positions with ABB, SEB and Capto Financial Consulting



Magdalena Högberg

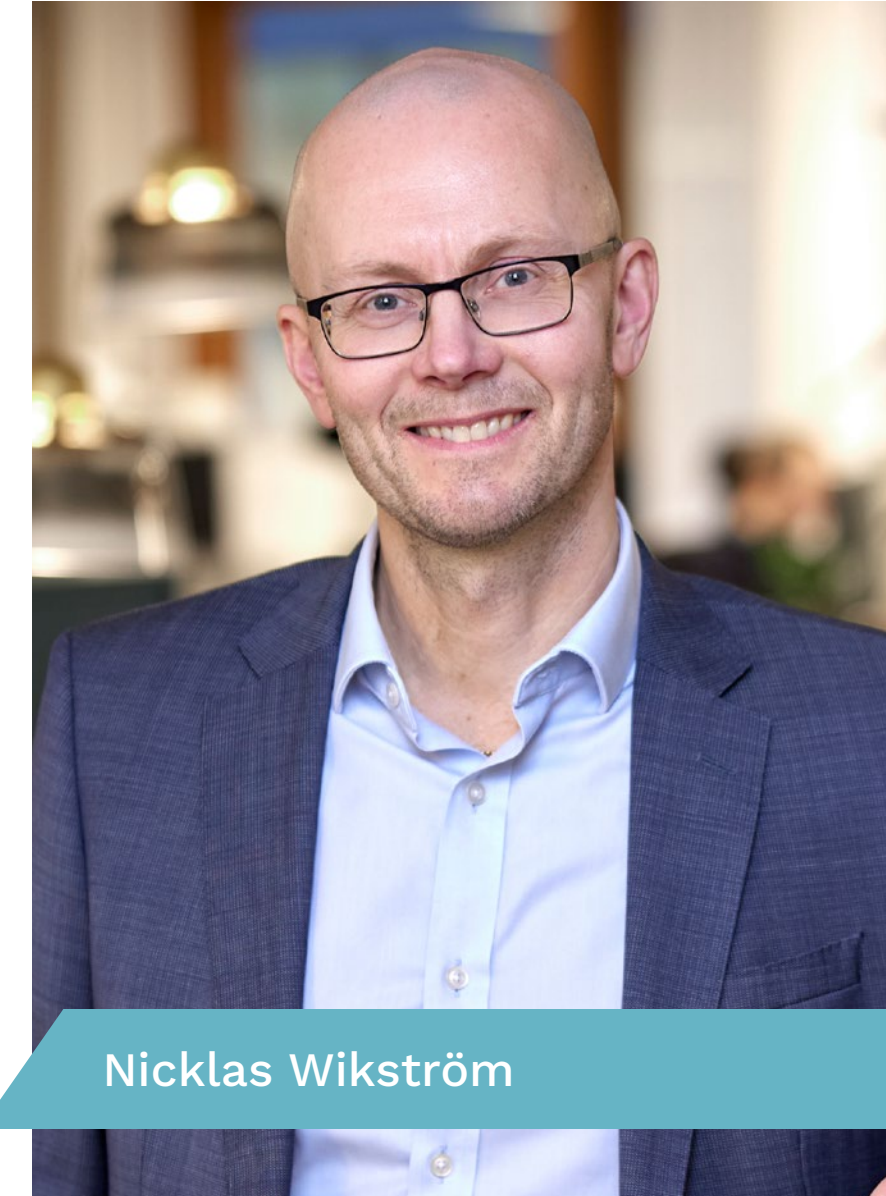
Head of Strategic Allocation & Quantitative Analysis
 Born 1983
 Employed since 2013
 M.Sc. Eng., M.Sc. Econ., CFA
 Previous positions with VPD and Astando



Jannis Kitsakis

Head of Fundamental Equities¹
 Born 1976
 Employed since 2008
 M.Sc. Econ.

Previous positions with Handelsbanken



Nicklas Wikström

Head of Risk & Business Support
 Born 1968
 Employed since 2008
 M.Sc. in Accounting and Financing, CEFA, AFA

Previous positions with AFA Insurance

¹ Jannis Kitsakis succeeded Per Colleen in the role as Head of Fundamental Equities at the start of 2022.

Sustainability data

AP4's sustainability reporting is based on the AP Funds' joint guidelines for the goal of how exemplary asset management has been achieved, based on agreed-upon reporting standards.

GRI-index

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Abbreviations used in the GRI table:

AR = Annual Report 2021
H = Specification of holdings 2021
CE = Council on Ethics of the AP Funds
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103-3	Evaluation of sustainability governance	27
201-2	Financial risks and opportunities posed by climate change	19
205-2	Communication and training about anti-corruption policies and routines	52-54
Own indicator: Long-term return		
103-1	Explanation of the material topic and its boundary	26
103-2	Sustainability governance and its components	24, 26, 30-32
103-3	Evaluation of sustainability governance	26
GRI 300 Environment		
Materials		
103-1	Explanation of the material topic and its boundary	46-47
103-2	Sustainability governance and its components	50
103-3	Evaluation of sustainability governance	27
301-1	Materials used by weight or volume	104
Energy		
103-1	Explanation of the material topic and its boundary	46-47
103-2	Sustainability governance and its components	50
103-3	Evaluation of sustainability governance	27
302-1	Energy consumption within the organisation	104
Emissions		
103-1	Explanation of the material topic and its boundary	46-47
103-2	Sustainability governance and its components	50
103-3	Evaluation of sustainability governance	27
305-1	Direct GHG emissions (Scope 1)	46-47, 102-103
305-2	Indirect GHG emissions (Scope 2)	46-47, 102-103
305-3	Emissions intensity	103

GRI Standards	Content	Page reference
GRI 400 Social aspects		
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103-1	Explanation of the material topic and its boundary	52-54
103-2	Sustainability governance and its components	100
103-3	Evaluation of sustainability governance	27
401-1	New employee hires and employee turnover	52-54
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Diversity and gender equality		
103-1	Explanation of the material topic and its boundary	52-55, 65
103-2	Sustainability governance and its components	52-55, 100
103-3	Evaluation of sustainability governance	45, 52-55, 75
405-1	Diversity of governance bodies and employees	85, 90-93
Non-discrimination		
103-1	Explanation of the material topic and its boundary	88-89
103-2	Sustainability governance and its components	88-89
103-3	Evaluation of sustainability governance	88-89
406-1	Incidents of discrimination and corrective actions taken	-
Human rights		
103-1	Explanation of the material topic and its boundary	100-101
103-2	Sustainability governance and its components	33-34
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TCFD tables

A central part of the TCFD's recommendations (see also page 47) 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 it is believed that the risks may affect investments in companies/sectors/geographic markets. The risks are assessed with an investment horizon of up to ten years.

Adapted TCFD table A1 with examples of climate-related risks

Climate-related risks	Potential financial impact	AP4
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 quantitatively managed low-carbon strategies, which reduces exposure to companies with high carbon intensity and whose goals and plans are not considered to be aligned with the Paris Agreement and have a limited ability to manage higher carbon pricing. This pertains above all to companies with considerable operations in thermal coal and oil sand, which AP4 divested in 2018. Moreover, in the resource-intensive sectors energy, utilities and materials, AP4 exercises fundamental company selection, which further concentrates AP4's holdings in these sectors. On the whole, these portfolio changes have reduced 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 carbon 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 strengths 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>

TRANSITION RISKS

Climate-related risks	Potential financial impact	AP4
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"> Decreasing 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 generate a stable return for their owners 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>
Acute risks		
<ul style="list-style-type: none"> Serious, extreme weather events such as hurricanes and floods 	<ul style="list-style-type: none"> Lower revenues due to reduced production capacity (e.g., transport and supply chain disruptions) 	<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 apparent 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 at present for concrete reallocations in the portfolio. 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>
Long-term risks		
<ul style="list-style-type: none"> Changes in precipitation patterns and extreme variations in weather patterns Rising average temperature Rising sea levels 	<ul style="list-style-type: none"> 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) 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 	
PHYSICAL RISKS		

TRANSITION RISKS

PHYSICAL RISKS

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 it is believed they may affect investments in companies/sectors/geographic markets. The assessment is made with an investment horizon of up to ten years.

Adapted TCFD table A2 with examples of climate-related opportunities

Climate-related opportunities	Potential financial impact	AP4	Climate-related opportunities	Potential financial impact	AP4
Resource efficiency			Products and services		
<ul style="list-style-type: none"> • Use of more efficient modes of transport • 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 buildings) • Benefits for employees (e.g., improved work environment with respect to health and safety, more satisfied employees), which leads to lower costs 	<p>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. In listed companies globally, within the energy sector AP4 has focused its investments on companies that are on track to becoming integrated energy companies with a growing share of investments in renewable energy. With respect to power companies, focus is on producers of renewable energy and electricity distribution companies, which are benefiting from electrification, and hydro power companies, which have low carbon emissions. Key themes for the companies that AP4 continues to invest in in the commodities sector are recycling, production of materials that are replacing carbon-intensive materials, and forest-owning companies.</p>	<ul style="list-style-type: none"> • Development of and/or expansion in products and services with low emissions • Development of solutions for climate adaptation and insurance solutions • Development of new products through research and development 	<ul style="list-style-type: none"> • Higher revenues through greater demand for products and services with lower carbon 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 	<p>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.</p>
Energy sources			Markets		
<ul style="list-style-type: none"> • Use of lower-emitting energy sources • Policies that support the transition • Use of new technologies • Participation in carbon emissions markets • Decentralised electric power generation 	<ul style="list-style-type: none"> • Reduced exposure to rising prices for fossil-based energy • Reduced exposure to greenhouse gas emissions and therefore less sensitivity to higher costs for carbon 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 	<p>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.</p>	<ul style="list-style-type: none"> • Access to new markets • Use of public sector incentives • Access to new assets and sites that need insurance protection 	<ul style="list-style-type: none"> • Higher revenues through access to new and growing markets (e.g., through partnerships with governments and development banks) • Greater diversity of financial assets (e.g., green bonds and infrastructure) obligationer och infrastruktur) 	<p>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.</p>
Resilience and ability to recover			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"> • 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 	<p>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.</p>

Risks in the portfolio

AP4's investment process includes identifying and managing economic, financial and sustainability-related risks that could affect the portfolio's long-term performance.

On top of these risks are also risks associated with AP4's internal operations, such as operational risks (e.g., personnel risks, systemic risks and process risks) and other business risks (such as reputational risks). Management of these is described on pages 52-55 and 75, and in the Fund Governance Report on pages 83-93.

Risk areas		
	The pension system's long-term needs and structural socioeconomic factors	Medium-term economic performance and financial markets
IDENTIFICATION	Identifies long-term risks for the pension system over 40 years' time: <ul style="list-style-type: none"> • Demographic development • Labour market development • Long-term return expectations in financial markets 	<ul style="list-style-type: none"> • Identifies risks from a ten-year perspective with focus on the 5-15 year time span, which enables analysis of more detailed cyclical events: • Macroeconomic scenarios • The financial markets' valuations • Climate transition
GOVERNANCE	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: <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 	The Board receives continuous reports on the analysis of medium-term economic performance and the financial markets. Based on risks and opportunities, the Board decides yearly on: <ul style="list-style-type: none"> • The Dynamic Normal Portfolio (DNP), a benchmark portfolio comprised of several market indexes
MANAGEMENT	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.	Scenarios for the macroeconomic development, including the climate transition's possible impacts on these scenarios, interest rate movements and equity valuations are presented yearly to the Board of Directors.
TARGETS	Striving for the combination of return targets and risk level that is best-suited for the pension system in the short- and long-term.	<ul style="list-style-type: none"> • Medium-term return target 3% • Active return target 1 percentage point • Active risk scope 5 percentage points
RESULTS	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, first in 2018 from 4.5% to 4.0% and now starting in 2021 to 3.5%.	AP4's asset management is evaluated over different time horizons: <ul style="list-style-type: none"> • Total return has been evaluated since the start in 2001. AP4's total return for the period 2001-2021 has averaged 7.2% per year, compared with the long-term return target, which averaged 5.7%. • Ahead of 2022 the Board decided to introduce a new asset class, Defensive Equities, with an allocation of 5% of the DNP. The change entails at the same time a 2 percentage point decrease in the allocation of other equities in the DNP and a 3 percentage point decrease in the allocation of Fixed Income Investments. • Active return on top of the DNP is measured over a rolling 5-year period and averaged 2.3 percentage points per year during the period 2017-2021, compared with the target of 1.0 percentage point 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 risks 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, AP2 and 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, AP2 and 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 event 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 to the desired result, the Council on Ethics may recommend that AP Funds 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 monitoring 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 to limit 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 60%. AP4's equity portfolio has a carbon intensity which today is 61% lower than a broad global equities index (MSCI ACWI). Based on its screening of the portfolio, the Council on Ethics registered 112 confirmed cases or cases with a risk for violations during 2021. During the year the Council on Ethics conducted 85 reactive company dialogues, of which environmental issues were the focus for 13% of these.

Based on its screening of the portfolio, the Council on Ethics registered 112 confirmed cases or cases with a risk for violations during 2021. During the year the Council on Ethics conducted 85 reactive company dialogues, of which social aspects including human rights were the focus for 60% of these.

Based on its screening of the portfolio, the Council on Ethics registered 112 confirmed cases or cases with a risk for violations during 2021. During the year the Council on Ethics conducted 85 reactive company dialogues, of which corporate governance including business ethics was the focus for 27% of these.

Description of sustainability risks

AP4's assignment enables a long-term approach, and an investment perspective of up to 40 years also makes it possible to achieve a high return over time. At the same time, this requires that AP4 identifies risks and carefully considers the risks and opportunities that are coupled to sustainability issues. AP4's analysis of sustainability trends shows how these may affect the portfolio – and how investments can be made that address these risks and benefit from the opportunities. The process is based on a structured evaluation, where an investment thesis is documented and then tested to see if it is possible to invest in accordance with the adopted thesis.

Climate risks

Today AP4's largest sustainability risks lie in climate changes and the transition that is needed to address these. A reduced climate impact is a precondition for stable and foreseeable economic development and thereby also for AP4's opportunities to succeed with its mission. In the transition to a society that uses fossil fuels to a lesser extent, emitting greenhouse gases will be increasingly more costly. This means that companies that cause large emissions will be valued and priced differently compared with today. This is why climate risks must be taken into account in AP4's long-term assessments of entire sectors and individual companies.

Part of the work surrounding the assessment of climate risks involves conducting climate scenario analyses. These are analyses in which AP4 makes an assessment of possible effects on the macro economy's performance over the medium term. The analyses are then used as a foundation for AP4's overall investments. The assessments also provide knowledge and at the same time support AP4's work on measuring climate risks in the portfolio. Moreover, the knowledge can be used toward investments in accordance with proactive sustainability themes.

Based on climate scenario analyses, AP4 has identified a number of themes that are essential for the climate transition. The decision that AP4 shall not have ownership in certain fossil-based companies as well as the decision to invest in accordance with low-carbon strategies are together contributing to a reduction in the portfolio's total carbon footprint. These decisions are also reducing AP4's exposure to short-term market risks as well as more long-term risks related to the transition. AP4 identifies and invests in such companies that can contribute to – and benefit from – the

ongoing climate transition, something that over time will create significant opportunities for the portfolio's performance.

Human rights

Shortcomings in and violations of human rights occur in many different industries, especially those with long supply chains that are hard to oversee. Shortcomings and violations also occur in countries with weak legal systems. It is thus a sustainability risk when AP4 has ownership in a company domiciled in a country with weak laws. The same applies when companies from countries with strong laws, such as Sweden, operate in such countries.

The United Nations Guiding Principles on Business and Human Rights (UNGP) is the UN's framework for how both states and companies are to act to avoid and prevent negative impacts or violations of human rights. Under the UNGP, companies are to adopt processes to identify and remedy negative impacts or human rights violations. In this area AP4 works both through the Council on Ethics of the AP Funds and together with other investors and stakeholders to influence foreign companies so that they address violations and prevent future negative impacts.

Corruption

Corruption is a global problem that exists in many industries and countries. Corruption costs society large amounts of money, destroys the conditions for sound competition and undermines citizens' trust in political and economic systems. Corruption is a pervasive sustainability risk for many companies and thus also for AP4, which invests in listed companies all over the world.

Preventing and combating corruption is an important sustainability issue, which is why the matter of how work with anticorruption is included almost always in the proactive dialogues that AP4 – through the Council on Ethics – conducts with the companies it has ownership in. The shared goal of the Council on Ethics' dialogues and of AP4's work against corruption, where AP4 votes at shareholder general meetings and supports global initiatives, is that the portfolio companies will strengthen their anticorruption work. In these dialogues AP4 discusses with its portfolio companies how the policies, guidelines and routines that are aimed to prevent corruption are designed and how they are followed up. These include tools that can reduce or prevent corruption, such as increased transparency, implementation of whistleblower functions and improved follow-up of internal rules.

Carbon footprint

Carbon footprint of the listed equity portfolio

In 2021 AP4 further reduced the listed equity portfolio's greenhouse gas (GHG) emissions by 23%. Since 2010 these emissions have decreased by a total of 60%, which is helping to reduce climate risk in the portfolio. AP4 measures and reports GHG emissions in accordance with uniform guidelines established for the AP Funds. These pertain to listed shares, which made up 64% of AP4's portfolio at year-end 2021. In addition, AP4 also reports GHG emissions for the unlisted real estate portfolio, which made up another 9% of the total fund capital at year-end. AP4 works continually to evaluate access to qualitative data to be able to broaden its measurement to an even larger share of the portfolio.

Metrics	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Total carbon emissions (millions tCO ₂ e) ¹	1.42	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 (%)	-23%	-15%	-11%	3%	-10%	6%	-13%	-15%	-6%	16%	-14%	-
- of which, due to changes in portfolio holdings (%-pts)	-18%	-12%	-16%	-	-	-	-	-	-	-	-	-
- of which, due to changes in companies' emissions (%-pts)	-5%	-3%	5%	-	-	-	-	-	-	-	-	-
Relative carbon emissions (tCO ₂ e/SEKm) ²	4.2	6.8	8.8	13.3	11.5	14.5	14.0	16.2	23.1	-	-	-
Carbon intensity (tCO ₂ e/SEKm) ³	9.4	12.8	13.5	15.9	13.5	17.6	22.2	-	-	-	-	-
Portfolio-weighted carbon intensity (TCFD) (tCO ₂ e/SEKm) ⁴	6.8	8.7	10.3	14.3	15.3	-	-	-	-	-	-	-
Change in portfolio's carbon intensity (TCFD) compared with preceding year (%)	-23%	-15%	-28%	-7%	-	-	-	-	-	-	-	-
- of which, due to changes in portfolio holdings (%-pts)	-22%	-9%	-21%	-	-	-	-	-	-	-	-	-
- of which, due to changes in companies' emissions (%-pts)	-1%	-6%	-6%	-	-	-	-	-	-	-	-	-
Identified market value as share of total fund capital (%)	64%	60%	59%	50%	56%	56%	56%	-	-	-	-	-
Identified market value as share of total equities (%)	100%	100%	100%	95%	97%	96%	100%	-	-	-	-	-
Share of market value for which reported emissions data is available (%) ⁵	72%	66%	60%	-	-	-	-	-	-	-	-	-

1) Sum of owned portion of portfolio companies' respective carbon emissions.

2) Sum of owned portion of portfolio companies' respective carbon missions in relation to the portfolio's market value.

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

4) This measure sums the portfolio companies' respective carbon intensity, i.e., a company's carbon 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.

Carbon footprint of the portfolio of real assets

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, which is followed up with a one- to two-year frequency. Both Vasakronan and Rikshem, AP4's two largest shareholdings in this asset class, have set targets to be climate-neutral by 2030.

In 2021 AP4 began work on measuring and reporting carbon emissions in the unlisted infrastructure portfolio. This work is a natural part of the expansion of AP4's holdings of real assets and is conducted in collaboration with the external managers of these assets. In response to requests for carbon emissions data during 2021, 90% of asset managers submitted relevant data. Development of carbon emissions reporting is progressing rapidly in the infrastructure sector, which is why AP4 in 2022 will continue working together with companies and external asset managers to quality assure and harmonise various metrics so that they can form the basis for future consolidated reporting for AP4.

Carbon footprint of the unlisted real estate portfolio

Metrics (for explanatory notes, see preceding page)	2021	2020	2019
Total carbon emissions (millions tCO ₂ e) ¹	0.019	0.019	0.032
Relative carbon emissions (tCO ₂ e/SEKm) ²	0.47	0.49	0.83
Carbon intensity (tCO ₂ e/SEKm) ³	3.7	4.9	4.6
Portfolio-weighted carbon intensity (TCFD) (tCO ₂ e/SEKm) ⁴	3.7	4.3	5.6
Identified market value as share of total fund capital (%)	9%	9%	9%
Identified market value as share of unlisted properties (%)	100%	100%	100%
Share of market value for which reported emissions data is available (%) ⁵	97%	97%	91%



AP4's direct environmental impact

AP4's direct environmental impact	2021	2020	2019	2018	2017
Electricity use in own offices, MWh	89	87	103	107	111
District cooling use in own offices, MWh	44	43	46	51	44
Use of heat in own offices, MWh	50	37	40	42	37
Use of water, m ³	375	262	433	433	413
Use of paper, tonnes	0.1	0.1	1.0	0.71	1.1
Ecolabelled paper as share of total paper use, %	100	100	100	100	100
Business travel by air, km 10,000s	2	11	54	51	46
Business travel by air, tonnes carbon CO ₂ emissions	3	12	60	57	52

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