

A close-up, monochromatic photograph of a woman's face, focusing on her eye and ear. The image has a soft, ethereal quality with a light blue/teal tint. The woman's hair is pulled back, and she is wearing a small hoop earring.

AP2 Sustainability and Corporate Governance Report 2016



Andra AP-fonden
Second Swedish National Pension Fund - AP2

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The Second AP Fund is one of **Northern Europe's largest** pension funds and manages **SEK 324.5 billion** in virtually all asset classes and all around the world. The fund is a **long-term and responsible** asset manager that has an important mission – to minimise the effects on future pensions due to the release of the so called brake.



CEO's report

Consistent focus on sustainability

2016 was an eventful year for the Second AP Fund in terms of sustainability. This was the result of a long-term and structured commitment, in line with our primary mandate, to make sustainability integral to all Fund activities. Our achievements in this field have gained broad recognition, not least in the international arena where, among other things, we were ranked eighth in the index published by the Asset Owners Disclosure Project, which rates the world's 500 largest investors.

This ranking, which is a measure of the ability to manage the climate risks related to investments, is pleasing for several reasons. For one thing, we note that increasing numbers are actively engaged in sustainability programmes. We also note that players in the Nordic countries are generally way ahead of fellow investors elsewhere. That we have climbed three places in the rankings compared to last year, despite growing competition, clearly demonstrates that our programme is developing successfully.

A sustainability programme that generates a return

One reason we have come so far in the field of sustainability is that the task assigned to us provides the potential for constant development. The mandate under which the AP Funds operate is broadly formulated and focuses on where we should be going rather than how to get there. Far from simply being able to lean back and relax once concrete objectives have been achieved, we are tasked with the ongoing development of our sustainability programme.

For the Second AP Fund, sustainability issues are closely linked with the requirement to generate high return for Sweden's pensioners. We are convinced that increased knowledge of these issues provides more comprehensive decision data, leading to better investment decisions. Consequently, sustainability is natural and important in all our activities to ensuring the best possible investments.

We are determined to integrate sustainability throughout our operations, in our day-to-day activities as well as in our longer-term strategic planning. In compliance with our mandate, we have addressed these issues in a structured manner. Aware of the need to gain a profound understanding of the many aspects of sustainability, we monitor the latest research and specialists. It is therefore especially pleasing to note that we have achieved much in this key sphere during 2016.

Integration in portfolio management

One of our most important actions concerning sustainability during 2016 was to integrate ESG (Environmental, Social and Governance) factors into the quantitative management of asset class global equities, which accounts for approximately SEK 90 billion of Fund capital. Most investors rely on standard 'off-the-shelf' ESG data, but we instead compile original base data to create our own factors. This process is continuing in 2017, and includes the development of an ESG-weighted index to promote a more strategic approach.

“ One of our most important actions concerning sustainability during 2016 was to integrate ESG factors into the quantitative management of asset class global equities.

In 2016, our board also decided to include green bonds in the strategic portfolio, being the next step towards making sustainability concerns integral to the portfolio management process. Nowadays, more and more people are talking about green bonds but, in 2008, when the Second AP Fund first invested in this asset class, we were among the first in the world to do so. We have learned much since then, which is of clear benefit when assessing the quality of the plethora of initiatives now available on the market.

Contributing to climate change

Ever since 2008, the Second AP Fund has adopted a structured approach to climate issues. In 2016, to enhance transparency about our efforts in this sphere, we published a folder clarifying our stance on climate issues. In terms of the climate, the Fund's objective is to develop the portfolio in compliance with the two-degree Celsius target for climate change. To achieve this, we monitor the risks and opportunities presented to us as long-term investors. Integrating climate-related financial analyses as part of the investment process, we are able to identify assets that involve climate-related financial risks, thereby reducing them. In 2016, based on our annual review of these analyses, we decided to divest our interests in 29 power and fossil-energy companies.

The opportunities consist of an ability to positively contribute to climate change, based on our mandate. By investing in sustainable strategies, such as green bonds, we help to limit climate change. By engaging in dialogue with companies and decision-makers about sustainability, we are an important catalyst for change. When we address climate issues, as at AGMs, we exert pressure to improve.

More focus on diversity

The 2016 edition of the AP2 Female Representation Index (Female Index), compiled annually by the Fund since 2003, showed a continued rise in the proportion of women in leading positions in companies quoted on Nasdaq Stockholm. For the first time, the proportion of female directors on the boards of these companies exceeded 30 percent. Developments in recent years shows that it is clear that these companies, without enforced legislation, are themselves well on the way to achieving gender equality on their boards and within their executive managements. The Second AP Fund has an important role in disseminating knowledge and demanding action, with the Female Index helping to ensure that the dialogue on diversity is firmly grounded in fact.

In 2016, we invested in the Women Entrepreneurs Opportunity Facility (WEOF), which combines the possibility of strong returns with a social dimension. As always, this investment was assessed in terms of the potential return and risk, but offered the added bonus that this increased access to capital helps promote both female enterprise and economic development in emerging economies. Furthermore, the Fund gains from an exchange of knowledge and insights with other investors, including the World Bank and Goldman Sachs.

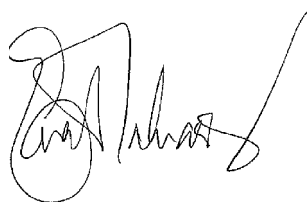
Many opportunities in 2017

In 2016, we initiated an in-house programme to implement the UN's Guiding Principles on Business and Human Rights (the Ruggie Principles), by identifying the Fund's key issues in this sphere. This work will continue in 2017, concentrating on how our portfolio companies comply with these Principles. We also grasped the initiative to address these issues within the Ethical Council, in collaboration with the other AP Funds.

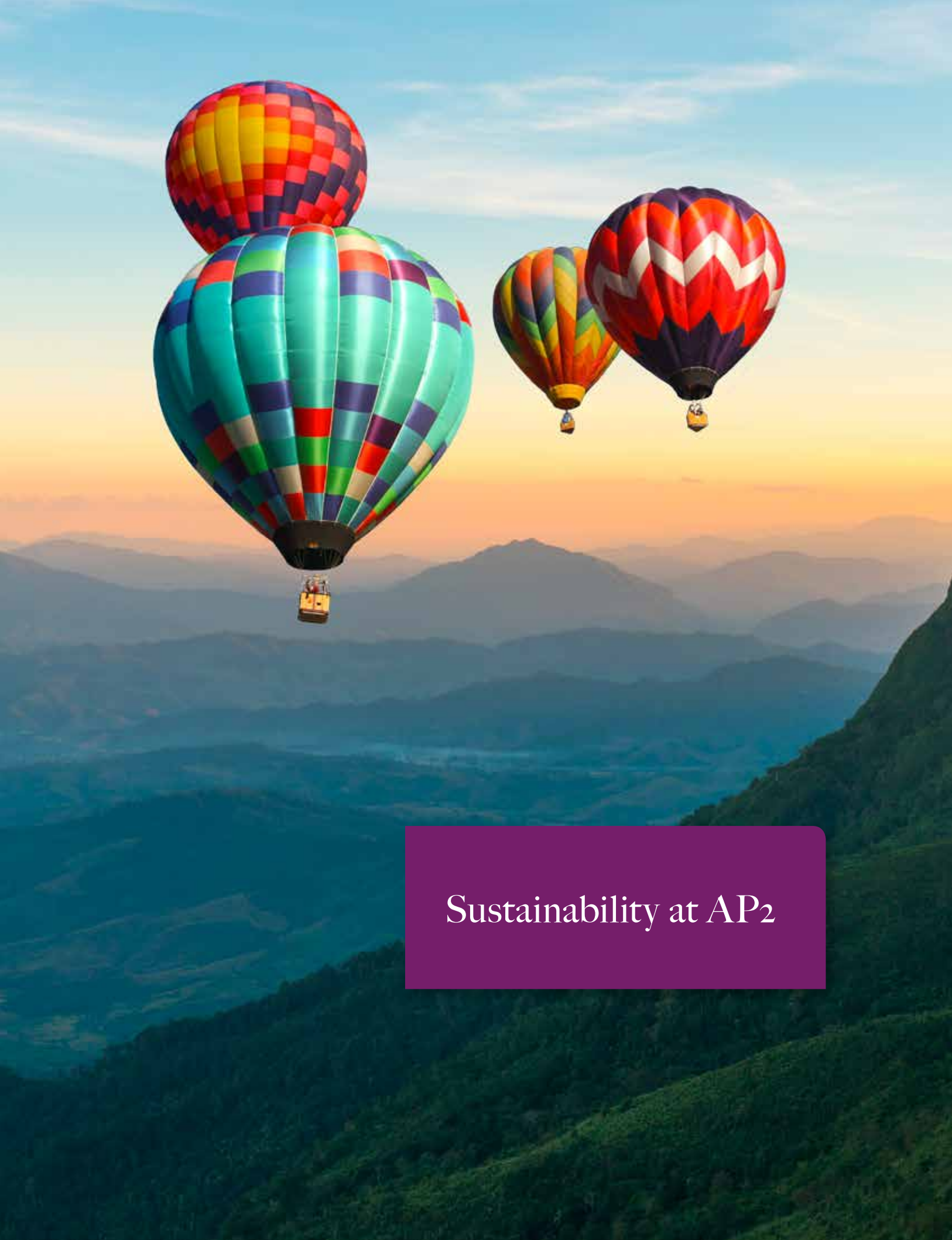
During the coming year, for example at AGMs, we shall continue to try to persuade publicly-quoted companies and other stakeholders to report on how they are relating to the UN's Sustainable Development Goals. If the different players describe how they are operating in relation to these Principles, we can learn from and be inspired by each other, while also promoting a joint understanding of how we can all contribute.

During 2017, we shall be focusing still greater attention on opportunities within the field of sustainability. We are a welcome speaking-partner and sounding-board in this sphere, which means that we continue to develop ourselves. On a personal note, I am looking forward to working as a member of the board of the UN-backed Principles for Responsible Investment (PRI) in 2017. This is just the sort of network that enables the Fund to sustain its sustainability programme at a globally competitive level.

We plan to maintain our active approach during the coming year and to promote positive development in this area. We must also prioritize those actions that best satisfy our mandated commitment to work for the good of Sweden's pensioners. The experience and expertise that we have gained over the years, combined with our consistent desire to learn more, enable us to promote responsible business practices as well as generating a solid return for Sweden's pensioners.



Eva Halvarsson, CEO



Sustainability at AP₂

The Second AP Fund's sustainability programme comprises the environment, ethics and corporate governance. The sustainability programme is designed to create and protect values. As an asset manager, the Fund is determined to address a range of factors involving the environment, ethics and corporate governance, as they either provide a better basis for analysis and investment decisions or promote diversification. The Fund strives to preserve a high degree of confidence by promoting a solid ethical and environmental approach while also contributing to the development of sound practice in fund management issues.

By actively addressing and integrating environmental, ethical and corporate governance issues in its operations, the Second AP Fund can generate and preserve value. The collective term that the Fund uses to embrace these issues is sustainability. Investors also use the acronym ESG (Environmental, Social and Governance). Integrating sustainability factors into analyses and investment processes generates broader and better decision data.

The Second AP Fund's framework

The Second AP Fund is a state agency whose operations are governed by the National Pension Insurance Funds (AP Funds) Act (2000:192). One of the AP Funds' key tasks is to maximize return while maintaining a low level of risk. The investment strategy shall accommodate the impact of pension disbursements while addressing the level of reserves that will be required to service these outflows.

It is important that the Second AP Fund shall enjoy the confidence of the general public and shall act in a responsible manner. This is reflected by the wording in the preface to the National Pension Insurance Funds Act, which states that the AP Funds shall take ethical and environmental concerns into account, but without ignoring the overall aim of an enhanced return on investment. Sustainability and responsible behaviour are both key priorities for the Fund. A proactive approach to the environment, ethics and corporate governance is the way to secure the goal of a solid risk-adjusted return on investment.

Governance policy

The Second AP Fund's operational approach to sustainability and corporate governance issues is based on the Fund's governance policy and its ten investor principles. These principles comprise structural matters, corporate governance, the environment – and ethics. The governance policy also defines the Fund's core values, and details the guidelines and initiatives to which the Fund is a signatory, or which it employs in pursuing its sustainability aims. This governance policy is determined annually by the board of directors and is published on the Fund's website at www.ap2.se

This governance policy clarifies what the Fund expects of its portfolio companies, as well as what these same companies may expect of the Fund as an investor. The Second AP Fund's engage-

ment in corporate governance issues is founded on regulations and conventions such as the OECD's Guidelines for Multinational Enterprises and Principles of Corporate Governance, the UN's Global Compact, the Swedish Companies Act and the Swedish Code for Corporate Governance.

The governance policy also describes the principles to which the Second AP Fund subscribes and that it employs as a framework in its efforts to promote sustainability, both within its portfolio management organization and in a range of governance activities. The Second AP Fund supports and actively promotes implementation of the UN's Principles for Responsible Investment (PRI). It signed up to these Principles as early as 2006, when they were first established. PRI provides various instruments and activities to support investors in implementing the Principles and to facilitate cooperation between investors.

By year-end 2016, some 1 400 investors had signed up to these Principles. PRI conducts an annual questionnaire, in which all signatories report on how they are implementing these principles in practice.

The Second AP Fund also implements the Principles for Responsible Investment in Farmland (Farmland Principles). These were developed in 2011 by the Second AP Fund in association with a group of international investors. To enhance transparency, PRI is compiling a special report on farmland investment. Further details are available at www.unpri.org

The Second AP Fund's report on the implementation of these Principles may be found on page 9.

Organization and responsibilities

The Second AP Fund's board of directors determines guidelines and policies pertaining to governance issues, entrusting day-to-day management of these issues to the Fund's CEO. The CEO is backed by a governance group that comprises members of the Fund's executive management, the head of Swedish equities and the sustainability analyst. This group is responsible for the strategic and operational aspects of the Fund's corporate governance activities.

The Fund's sustainability programme (ethics and environment) is conducted by a sustainability group that comprises the Fund's Chief Investment Officer (CIO), the sustainability analyst and the Head of Communication. This group is responsible for determining the strategic priorities to be addressed in dealing with sustainability

issues. Operational responsibility is assigned primarily to the Fund's credit management organization.

The governance and sustainability groups define goals and draft action plans for their respective spheres of responsibility, monitoring progress on an ongoing basis.

Reports on the activities of the governance and sustainability groups are submitted to the Fund's executive management, activities that are subject to the ongoing approval of the rest of the Fund's staff. The Second AP Fund board receives a report on the progress of the Fund's sustainability and governance activities at every board meeting.

Sustainability and corporate governance – core values

The Second AP Fund is tasked with generating a high long-term return at low risk, thereby helping secure the pensions of current and future Swedish pensioners. The Second AP Fund is convinced that a high long-term return at low risk is fully realistic, if sustainability is made integral to its activities, both within the organization and as part of the investment process.

As part of the Swedish national pension system, the Second AP Fund's core values are based on the same values as those espoused by the Swedish State, where democracy and the importance of sustainable development are key elements, in compliance with the terms of the Swedish Constitution Act. The Fund's core values are also based on the international conventions to which Sweden is a signatory. The Fund believes that the companies in which it invests must themselves be responsible for ensuring that international conventions are not contravened, irrespective of whether these are directed at sovereign States, individuals, companies or organizations. Furthermore, this responsibility shall apply even when countries in which the companies operate have signed no conventions or feature less stringent legislation.

The Second AP Fund's commitment to sustainability and corporate governance is intended to generate and preserve value for Sweden's current and future pensioners. The Fund makes a difference by working proactively to promote sustainable development, by taking action and by demanding transparency and positive change. This improves the Fund's potential for fulfilling its assigned task.

The Second AP Fund's framework for sustainability

The Fund's commitment to sustainability is based on the Swedish parliamentary requirement to generate a high return at low risk, within an internationally established framework.

The Second AP Fund has been tasked by the Swedish Parliament to manage capital within the Swedish national pension system

with a view to generating a high return at low risk. In its investment activities, the Fund shall address ethical and environmental concerns without compromising the overall objective of a high return. The Fund shall refrain from strictly commercial or economic-policy objectives. Sustainable development is central to the operating framework established for the Second AP Fund. This framework embraces:

- The Swedish Constitution Act, based on democracy, fundamental freedoms and human rights, the fact that all people are equal and respect for the individual's freedom and dignity.
- The UN's international conventions to which Sweden is a signatory, involving areas such as the environment, human rights, labour rights, corruption and inhuman weapons.
- The international guidelines to which Sweden subscribes such as the UN's Global Compact, the ILO and the OECD's Guidelines for Multinational Corporations.
- Sweden's positions on international law.

The Second AP Fund expects companies to comply with legislation, conventions and international guidelines, whichever country they operate in. This responsibility shall apply even when the country in question has signed no convention or features less stringent legislation. An established and international framework is essential to the success of the Fund's sustainability programme and to creating opportunities for conducting a constructive dialogue with companies, whatever their country of residence. This also applies to opportunities for collaboration with other investors and market players, who may be important to the Fund's ability to make a positive difference.

Implementing PRI principles

The implementation of PRI principles is an ongoing process, one which requires the Second AP Fund to consistently address sustainability issues, both in its role as asset manager and as asset owner. The Principles are about the following: integrating sustainability issues as part of investment analyses and decision processes (First Principle); acting as active owners (Second Principle); encouraging better sustainability reporting by companies (Third Principle), collaborating with other investors (Fourth and Fifth Principles) and reporting on progress (Sixth Principle). Integration, dialogue, collaboration and reporting are key words for these Principles and for the Second AP Fund's sustainability programme.

| | PRI Principles | Examples of what the Second AP Fund does |
|---|---|--|
| 1 | We will incorporate environmental, social and corporate governance (ESG) issues into investment analysis and decision-making processes. | <p>Includes ESG data in analyses and decision making processes in the Fund's active internal asset management.</p> <p>Works on developing models and tools for ESG that are geared to different investment strategies.</p> <p>Includes ESG in the analyses of new funds and portfolio managers. Questions about ESG form part of the yearly evaluation of external asset managers.</p> |
| 2 | We will be active owners and incorporate ESG issues into our ownership policies and practices. | <p>Incorporates ESG factors as part of its Corporate Governance Policy.</p> <p>Conducts dialogues regarding ESG issues with Swedish and foreign companies.</p> <p>Exercises its vote at Swedish and foreign AGMs.</p> <p>Participates in nomination committees.</p> <p>Monitors portfolios to detect violations of international conventions and guidelines.</p> |
| 3 | We will seek appropriate disclosure on ESG issues by the entities in which we invest. | <p>Supports a range of initiatives geared to improving corporate reporting procedures, including the Carbon Disclosure Project, the Extractive Industries Transparency Initiative, the Global Compact and the Sustainable Value Creation Initiative.</p> <p>Demand all external managers to report on ESG.</p> |
| 4 | We will promote acceptance and implementation of the Principles within the investment industry. | <p>Encourages external fund managers to become signatories of the PRI.</p> <p>Participates in conferences.</p> <p>Includes questions pertaining to PRI in procurement tenders, where relevant.</p> |
| 5 | We will work together to enhance our effectiveness in implementing the Principles. | <p>Collaborates with the First, Third and Fourth AP funds in the joint Ethical Council, which is responsible for conducting dialogues with foreign companies. The Ethical Council also collaborates with international investors in pursuing dialogues with companies and proactive initiatives.</p> <p>Collaborates also with other Swedish and international investors.</p> |
| 6 | We will each report on our activities and progress towards implementing the Principles. | <p>Publishes an annual Sustainability and Corporate Governance Report and also reports on PRI in the Annual Report and on the website.</p> <p>Reports on dialogues with foreign companies in the joint Annual Report of the Ethical Council.</p> <p>Responds to the PRI's annual survey and makes it available public at the PRI and Second AP Fund's websites.</p> |

A photograph of two white ceramic cups of coffee with heart-shaped latte art, a purple succulent, and coffee bags in the background. The cups are on a wooden surface. The succulent is a dark purple color. The coffee bags in the background have text like 'ROCAI', 'SUPREMO FLO ID 3', 'JOHAN & NYS', 'PRODUCT OF N', and 'CROP 20'.

Sustainability in the investment process

Integrating sustainability into asset management is about factoring sustainability issues into analytical and decision processes. This also enables the Fund to reduce risk and increase its potential for increased return. The Fund believes that companies focused on long-term sustainability will also generate a solid return in the long term.

The Fund is firmly convinced that companies with long-term sustainable business models generate a higher long-term value for their owners. All things being equal, such investments also incur less risk. Companies able to integrate factors such as ethics and the environment into their long-term business development will have an advantage compared with their competitors, and are more likely to generate long-term value for their owners. A proactive approach to ethics, the environment and corporate governance is therefore the means to achieving the goal of a solid risk-adjusted return.

The Fund's definition of sustainability

The sustainability programme implemented by the Second AP Fund derives from the nature of its mission and involves acting over the long term, to preserve and add value to its invested assets – based on an economic, environmental and social perspective.

Sustainability integral to asset management

The Fund's overall objective is that sustainability must form an integral part of all analytical and decision processes. This work has been ongoing in a structured form for several years now.

The Second AP Fund is responsible both for the management and governance of the capital assets in its care and is actively engaged in addressing environmental, ethical and corporate governance issues from both perspectives. By encouraging portfolio companies to address ethical and environmental issues, the Second AP Fund can help them identify the opportunities and risks, at an early stage, that have effects on the return.

The Second AP Fund believes that a responsible long-term approach to the environment, ethics and governance enhances the value of companies. By integrating an analysis of environmental, ethical and corporate governance factors with its economic analysis, the Fund's asset managers are able to generate better data for investment decisions.

Integration of sustainability in the investment process

| Asset class | Analysis | Implementation 1. Integration in analytical and decision processes | 2. In-house monitoring/ external reporting |
|--|----------|---|---|
| Equities | | | |
| Swedish equities | ● | ● | ● |
| Foreign equities | ● | ●↑ | ● |
| Fixed income | | | |
| Fixed-income securities | ● | ●↑ | ● |
| Fixed-income securities emerging markets | ● | ● | ● |
| Alternative investments | | | |
| Real estate | | | |
| Farmland | ● | ● | ●↑ |
| Forest | ● | ● | ● |
| Traditional real estate | ● | ●↑ | ● |
| Private equity funds | ● | ●↑ | ●↑ |
| Alternative credits | ● | N/A | N/A |
| Alternative risk premiums | ● | N/A | N/A |
| Chinese A-shares | ● | ●↑ | ● |

● Yes
 ● Partially
 ● No
 ↑ Change compared to last year

Analysis – The Fund has conducted a situational analysis and identified viable growth potential.

Implementation

1. Integration in analytical and decision processes – The Fund's estimate of the extent to which integration has been achieved. In the case of externally managed assets, sustainability shall form an integral part of the agreements.

2. In-house monitoring/external reporting – Monitoring of the Fund's sustainability measures (incl. external asset managers).

As a manager of Sweden's national pension assets, the Second AP Fund is responsible to all those who at one time or another have worked in Sweden for ensuring that the assets managed enjoy solid and sustainable economic growth. The Second AP Fund shall act in a manner that best satisfies the demands of its overall mission.

During the year, the Second AP Fund arranged a number of seminars and training sessions to create better understanding and awareness of sustainability issues among its staff. This is important in facilitating the integration of sustainability factors in the Fund's everyday activities.

Focus areas

The Fund's sustainability activities concentrate primarily on a few focus areas that are considered essential to achieving a better long-term return. The idea to focus the Fund's resources on a number of areas is to achieve results in areas of financial relevance.

The Fund's broad priority is:

- The integration of sustainability as part of the asset management process.

The Fund's focus areas are:

- Climate
- Corporate governance
- Diversity
- Transparency/reporting procedures.

The Fund possesses extensive expertise and experience in these selected focus areas, having been engaged in these issues for a considerable period. It expects to focus on these areas for a long time to come. The work carried out in these focus areas, will target companies in which the Fund has invested most heavily and/or those in which it controls a substantial interest and in sectors deemed to pose considerable risks in terms of financial sustainability.

A selection of the Second AP Fund's sustainability goals 2017

| Priority areas/Asset class | Goal 2017 | Monitoring method/Key performance indicator |
|-----------------------------|---|--|
| ESG integration | | |
| Swedish equities | Evaluate progress for ten largest Swedish holdings regarding sustainability, based on Fund's equity interest | Analysis and dialogue shall be completed |
| Chinese A-shares | Establish active dialogue with portfolio managers on their integration of ESG | Evaluation of reports and other methods |
| Reporting | | |
| Private equity funds | Increase percentage of private equity funds that submit ESG reports to 75% | Funds that submit ESG reports |
| Swedish equities | Increase GRESB questionnaire response rate by the Fund's Swedish exchange-listed real-estate companies to at least 50% | Companies that responded, % |
| Traditional real estate | Ensure the Fund's non-listed real-estate companies and funds respond to the GRESB questionnaire in 2017 | Companies that responded, % |
| Farmland and forest assets | Reports on compliance with PRI guidelines for responsible farming | Result of Fund's questionnaire to managers of farmland investments/managers' own reports |
| | A third-party audit of farmland investments in Brazil | Reports to TCGA |
| Chinese A-shares | Develop Chinese portfolio managers' reporting on ESG | Reports from portfolio managers |
| Climate | | |
| Global equities | Follow up on climate-related financial-risk analyses | Based on predetermined criteria |
| Traditional real estate | That the Fund's aggregated 'GRESB Scores' are improved | GRESB score |
| | Determine energy consumption and carbon footprint from the Fund's non-listed real-estate portfolio and listed Swedish real-estate companies | GRESB indicators |
| Farmland and forest assets | Explore possibility of measuring the carbon footprint from farmland | |
| Other | Determine and evaluate the Fund's carbon footprint | Based on predetermined numerical values |
| | Develop the Fund's stance on climate change | |
| Diversity | | |
| Swedish equities | To promote increase in percentage of women on boards of companies where the Fund is represented on the nomination committee | Women on boards, % |
| Corporate governance | | |
| Swedish equities | Exercise voting rights in all companies that meet the Fund's criteria for participation in the AGM | Votes exercised, % |
| Global equities | Vote at AGMs of 750 foreign companies | Statistics |
| | Write 50 follow-up letters to companies where we have voted against the board's proposals | Statistics |

This policy derives from the recognition that the work must focus on those areas and companies of key financial importance to the Fund. This work may be conducted in collaboration with other investors, with a view to securing improvements within an individual company and/or a particular sector. The process of addressing the focus areas are conducted in-house. The Fund believes this is the best way to achieve its broad goal of integrating sustainability as an essential element of all analytical and decision processes, which is also compatible with its mission.

The long and short-term goals for the individual focus area, as well as the activities planned for achieving these goals, have been broken down and are stated in detail in the Fund's annual business plan for sustainability and in the action plans drafted for individual asset classes.

Sustainability module in the risk-assessment system

Integration of a sustainability module as part of the Fund's risk-assessment system was completed in 2016. The system is capable of generating aggregated sustainability-rankings at the portfolio level, as well as producing detailed data on specific questions, such as carbon emissions. As a first step, the Fund has started by looking at various aggregated sustainability rankings for its portfolios of equities. The Fund has numerous portfolios of equities based on a variety of investment strategies. These rankings consist of total points amassed, although they may also be broken down into an environmental, social and corporate-governance ranking. Initially, the Fund has analysed the extent to which its divestments and exclusions have affected the portfolios' sustainability rankings. These divestments and exclusions have resulted in marginally positive variations in the overall sustainability rankings. The Second AP Fund has also explored the extent to which rankings vary between different portfolios of equities. The Fund's portfolios of Swedish equities note slightly better aggregated sustainability-rankings than the average noted for all its portfolios of equities.

During 2017, the Fund will continue to analyse what these rankings can offer in terms of a clearer insight into its sustainability risks at the portfolio level. It will also focus on formalizing processes to secure active integration of the various aspects of sustainability as part of its risk reporting procedures.

Equities

Management of the Swedish portfolio is based on a fundamental analysis, in which aspects of sustainability such as taxation, forthcoming regulations and governance issues are factored in when valuing companies. The Fund's sustainability and equity analysts collaborate closely, participating in regular meetings where sustainability issues are discussed and information exchanged. The Fund has, for example, employed an external supplier's sustainability analyses of sectors as the basis for discussions as to which ESG factors might

be materially significant for different sectors. This process will continue in 2017. The Fund also has access to sustainability analyses conducted on individual companies, which can contribute data to the fundamental analysis. During the year, the Second AP Fund conducted a review of sustainability-related factors linked to the gambling industry, which has led to a dialogue with Swedish gambling companies (more about this work with the gambling industry on page 45).

Global equities are mainly actively managed, adopting a quantitative approach. The models employed are developed in-house and feature several factors, including sustainability aspects. Following the completion of a project in 2016, significantly more sustainability factors were integrated into existing models (more on this project on page 42). The Second AP Fund also has a number of global-equity mandates under external management, including Chinese domestic equities (more about the Second AP Fund's collaboration on sustainability with external portfolio managers in China on page 50).

All companies included in the Second AP Fund's portfolio of equities are screened twice yearly, to identify those that contravene international conventions and guidelines. This analysis is conducted by an external supplier and provides the basis for dialogues conducted by the Ethical Council. More details of the Ethical Council's activities at www.etikradet.se

Private equity funds

The Fund has a structured process for analysis, evaluation and follow-up which, as well as sustainability, embraces economic, risk and performance analysis. This process can also be applied to the Fund's investments in non-listed real estate, as well as forest and farmland assets. The Second AP Fund is engaged in an ongoing process that seeks to develop ways to evaluate and monitor sustainability reporting by private equity funds. Over the year, the Second AP Fund has conducted numerous dialogues with private equity funds concerning sustainability and reporting procedures. It is clear that sustainability is attracting increasing attention and many private equity companies are adopting a systematic approach to the issue. Almost 70 percent now report back in some form on how they are working with sustainability, a rise of about 10 percent compared with the preceding year.

Since 2014, the Second AP Fund has been represented on the PRI Private Equity Advisory Committee (PEAC), which acts as an advisory organ in support of the PRI's work in the field of private equity. This committee is tasked with offering advice on strategies and activities, monitoring the implementation of PRI principles within the private equity sector and assisting with guidance and tools. One project, in which the Fund has played an active role, involved the drafting of a questionnaire on sustainability, which can be used prior to investment. PRI published a report about this in November 2015.

ILPA

ILPA (Institutional Limited Partners Association) is a global organization for investors in private equity funds, focused on promoting issues of joint interest to investors in the private equity industry. ILPA provides training, establishes 'best practice', drives its own research projects and offers opportunities for investors to exchange ideas and experience.

The Second AP Fund has been a member of the ILPA for almost 15 years and now, for the second time, it has a place on the board. The Fund is also active on the ILPA's Public Affairs Committee and was earlier active on its training committee. The Fund became a signatory to the ILPA's Principles in 2015. These were established in 2009 and updated in 2011. They may be classified under three main groups: 1) Alignment of interest, 2) Governance and 3) Transparency.

Green and social bonds

During the year, the Second AP Fund made an important move, by including green bonds as an individual asset class in the strategic portfolio. The Fund has invested actively in green bonds since 2008. Green bonds are intended to finance projects that help mitigate climate change or aid countries in their attempts to adjust to it.

The Fund has invested in many of the World Bank's green bonds. One example of a project promoted as part of the World Bank's green bond programme is the development of India's electrical grid. The project is expected to achieve a reduction in carbon emissions, through efficiency gains deriving from the development and expansion of the infrastructure for power distribution. It will also facilitate the transfer of hydropower from areas of excess electrical capacity to those suffering from under-capacity. The project itself is not linked directly to a specific green bond, but to the issuer.

This investment in green bonds suits the Second AP Fund well, as it coincides with the Fund's approach to climate change, contributes to a diversification of the portfolio and is attractive to long-term investors.

It has been possible to broaden the integration of sustainability issues into the management of fixed-income securities thanks to the growth of a market for social bonds. Social bonds are issued by organizations as a means of funding loans to projects that, for instance, aim to combat poverty by enhancing the quality of children's education and helping young people enter the labour market.

During 2016, the Second AP Fund increased its investments in green and social bonds and, as of December 31 2016, had invested in bonds to a value of SEK 5.3 billion.

Traditional real estate

A multitude of sustainability issues are of importance in the real estate sector. Energy is a central issue, since traditional real estate accounts almost 30 percent of global emissions of greenhouse

gases and up to 40 percent of energy consumption. To better monitor and evaluate progress on sustainability within its real-estate investments, the Second AP Fund joined the Global Real Estate Sustainability Benchmark (GRESB) in the spring of 2014. GRESB is an organization that conducts an annual questionnaire to assess how real-estate companies and real-estate funds address seven aspects of sustainability. These are management, policy and reporting, risks and opportunities, follow-up and environmental management systems, environmental indicators (energy, greenhouse-gas emissions, water and waste), building certification and dialogues with stakeholders. In 2016, more than 700 companies participated in the survey.

Every year, the Second AP Fund asks its non-listed real-estate companies/funds, as well as all Swedish-listed real estate companies, in which it has invested, to respond to the GRESB questionnaire. The Fund's three non-listed real-estate companies responded to the questionnaire, unlike either of the two foreign non-listed real-estate funds. Four of twelve listed Swedish real-estate companies responded. This meant that the Fund failed to meet the goals established for 2015 – that all its non-listed real-estate companies/funds and half of its Swedish-listed portfolio companies should report to GRESB.

GRESB assigns each company/fund an overall total number of points – the GRESB score – which can range from 0 to 100. The Second AP Fund's non-listed companies received a combined GRESB score of 72, an increase from 64 in the preceding year. The non-listed companies' carbon footprint was 7 tCO₂e per million Swedish kronor invested. See page 22 for the Fund's progress on climate and carbon-footprint reporting.

In December 2016, the Second AP Fund arranged a Sustainability Day for its non-listed real-estate companies, with a view to improving collaboration on sustainability issues between the companies and to discuss sustainability indicators. For more on this, see page 48.

Forest real estate

As an asset class, forest offers both diversification and a stable, long-term return. The Second AP Fund has invested in forest since 2010. Of the Fund's total capital, 1.2 percent is invested in forest assets. The majority of these investments are in Australia and the USA, in forest assets that produce saw timber and pulpwood. The Fund has three external asset managers: New Forests, Molpus and GreenWood Resources. New Forests invests in Australia and New Zealand, Molpus in the USA and GreenWood Resources in Europe, Latin America and the USA. As of 30 September 2016, the Fund had invested in forest assets totaling an area of some 91 000 hectares. The pie charts on the next page illustrate geographic distribution as well as that between deciduous and coniferous forest assets.

Second AP Fund's forest real-estate holdings

| | No. of hectares | Share of total, % |
|--|-----------------|-------------------|
| Certified forest real estate, in compliance with FSC and/or PEFC | 71 500 | 89 |
| In process of certification, in compliance with FSC and/or PEFC | 3 500 | 4 |
| Sustainably cultivated forest real estate, in compliance with FSC and/or PEFC, but where such assets cannot be certified | 30 | 0 |
| Other, land used for roads, buildings and other non-productive areas or land yet to be planted. | 5 200 | 6 |

Figures in this table as per December 31, 2015.

Sustainability certification required

Where possible, the Second AP Fund makes it a condition that fund managers should certify forest real estate in compliance with one of the international sustainability certification systems, Forest Stewardship Council (FSC) or the Programme for Endorsement of Forest Certification (PEFC). Even if the forest assets cannot be certified (as in the case of biomass plantations not covered by FSC or PEFC certification) they will be managed in compliance with the certification principles implemented by these organizations.

New Forests, a fund manager founded in 2005, specializes in forest assets. It is also engaged in finding markets for the ecosystem services the forest offers. Right from the start, sustainability issues have been central to New Forests' business concept. New Forest has a declared ambition to achieve a leading position in sustainability. Consequently, the fund has sustainability policies and management systems in place and ensures that its forest assets are certified sustainable by independent agencies. New Forest also collaborates with various stakeholders concerning the environment and social sustainability. The Second AP Fund has invested in two New Forests funds that focus on Australia and New Zealand. The predominant tree varieties are eucalyptus and pine. New Forests' sustainability reports are available at www.newforests.com.au

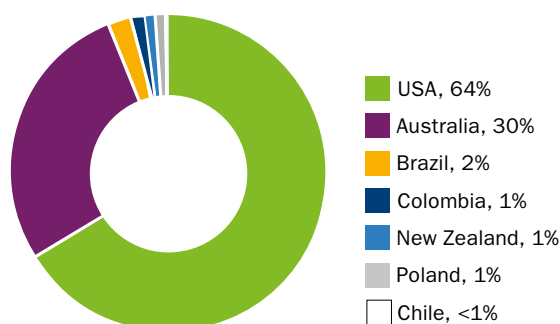
Molpus has been managing investments in forest real estate in the USA since 1996 and has a long tradition of sustainable forestry. The forest assets in Molpus' funds feature a mix of coniferous and deciduous varieties, with oak, maple, poplar, spruce and pine predominating. Molpus also has policies and management systems for promoting sustainability. It applies the Sustainable Forest Initiative (SFI), which is the American certification programme within the PEFC. Since 2011, Molpus has adopted multisite certification, which means that an independent agency conducts an annual audit of approximately a third of the forest assets and that new forest assets are included as they are acquired. In some cases, Molpus can also choose to certify its assets in compliance with FSC. These audits are available on the SFI website at www.sfiprogram.org

GreenWood Resources manages forest assets in two companies, Global Timber Resources and Lewis & Clark, which AP2 owns jointly with other institutional investors. Established in 1998, GreenWood manages forest assets in compliance with FSC or PEFC. The company is intensively engaged in the development of plant material, concentrating on fast-growing tree species such as poplar. Through its interest in Global Timber Resources, AP2 achieves a geographical diversification (Brazil, Colombia, Poland and Chile) as well as towards more fast-growing tree species. Lewis & Clark's assets comprise traditional forest on the west coast of the US. Further details at www.greenwoodresources.com

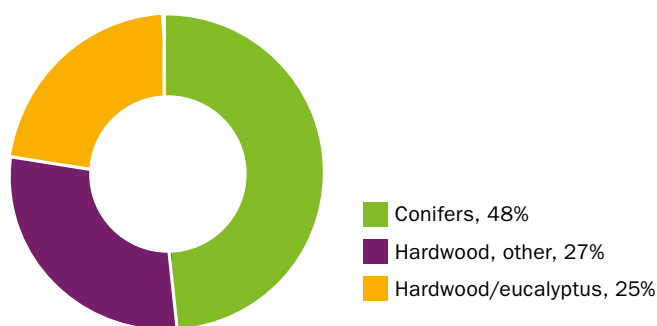
Forest storage of carbon dioxide

Molpus also conducts analyses to determine whether its forest real estate might be appropriate for inclusion in 'carbon projects'. If the anticipated regrowth significantly exceeds felling volumes, Molpus calculates the value of directly extracted forest products relative to the value of the forest as a carbon sink (that the forest naturally lowers the carbon dioxide content). In order to be able to sell the carbon credits that the forest generates, a functioning market and

Geographic distribution, forest (hectares)



Production distribution, forest (hectares)



All figures as at September 30, 2016.

regulatory system is needed. The USA operates the Climate Action Reserve (CAR), a national programme for managing carbon credits. For one of these forest assets, Molpus is working to secure a permit to sell carbon credits and is engaged in a comprehensive process designed to calculate just how much carbon dioxide this particular forest asset can absorb.

The methods employed to calculate the amount of carbon dioxide that can be stored are still under development. New Forests has produced figures stating the number of tons of carbon dioxide stored in the forests it manages. The Fund's share of the total CO₂e stored by these forest assets is around 4.5 million tons.

Agricultural real estate

Investment in agricultural real estate forms part of the Second AP Fund's strategy for diversifying the overall portfolio. Some 2.5 per cent of the Fund's capital under management is invested in agricultural real estate. Sustainability factors are central to the Second AP Fund's investments in farmland. The Fund's strategy is to invest in large-scale agricultural real estate in countries that possess clearly-defined legal structures. This disqualifies many geographical regions for investment.

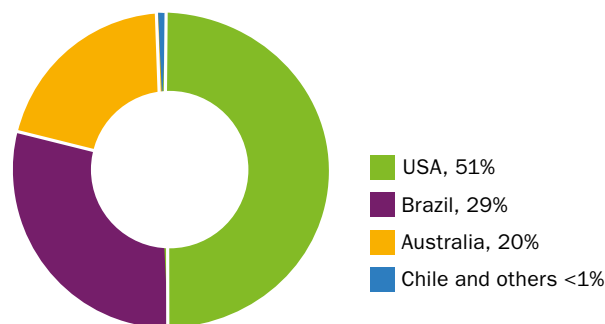
The Second AP Fund has elected to invest in agricultural real estate by establishing joint ventures with other investors, a form well suited to the Fund's long-term investment approach. The Fund has invested in three joint-owned companies: TIAA-CREF Global Agriculture (TCGA), TCGA II and Teays River Investments. TCGA and TCGA II own agricultural real estate in the USA, Brazil, Australia and Chile. The Fund has invested USD 450 million in TCGA and undertaken to invest USD 750 million in TCGA II. In the case of Teays River Investments, which invests mainly in the USA, the Fund has invested USD 100 million. As at September 30 2016, these companies had invested in farmland totalling some 637 000 hectares. The Second AP Fund's share of these overall investments amounted to approximately 115 000 hectares of farmland.

TCGA and TCGA II are managed by TIAA Asset Management's company, Westchester, which manages farmland in Australia, USA and Brazil.

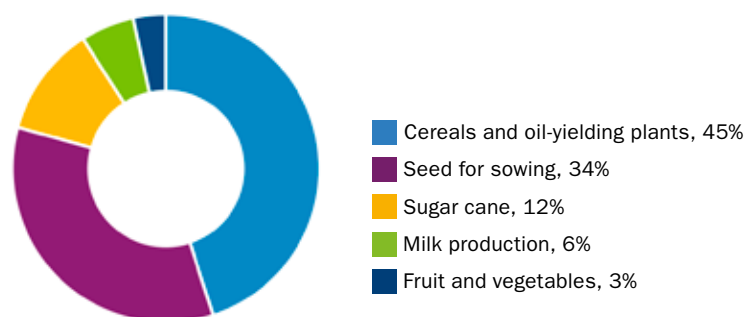
The Second AP Fund is actively engaged in improving companies' efforts concerning sustainability, including participation in the work of their boards. The Second AP Fund's representative on the TIAA-CREF Global Agriculture board is also a member of the ESG council. During 2014, an audit was initiated of tenant farmer operations on TCGA's agricultural real estate in Brazil. The audit has taken into account the company's own policies, the PRI's Guidance for Responsible Investment in Farmland, and national legislation. More of this on page 18.

The Second AP Fund cultivates no land. The land is leased either to local farmers/companies or administered by external managers for the joint-venture companies. Where farmland is leased to a tenant farmer, the farmer decides which crop is to be cultivated and is

Geographic distribution, agriculture (hectares)



Production distribution, agriculture (hectares)



All figures as at September 30, 2016.

responsible for both its production and sale. If the farmland features a more permanent form of cultivation, such as an orchard, it is looked after by an agent, appointed by the external manager. The majority of the acreage owned by the joint-venture companies is leased out to tenant farmers. Most of the investments made in Teays River, however, are managed directly by the operative companies.

Reporting on implementation of PRI's Guidance for Responsible Investment in Farmland

In the autumn of 2014, PRI acquired responsibility for administering the Principles for Responsible Investment in Farmland in whose development in 2011 the Second AP Fund was involved. Following their integration into the PRI initiative, these Farmland Principles have evolved into PRI's Guidance for Responsible Investment in Farmland.

PRI encourages all signatories with farmland investments to implement the principles stated in its Guidance. One consequence of this integration is that reporting on implementation of the Guidance will not be conducted separately, but will be included in the PRI's normal reporting procedures. To further transparency, the PRI compiles a separate farmland report ('Responsible Investment in Farmland', www.unpri.org/publications).

The Second AP Fund maintains an ongoing dialogue with its managers, as well as visiting its agricultural assets several times a year. TIAA publishes an annual report in which it details its implementation of the Guidance for Responsible Investment in Farmland. It has developed a number of indicators based on the Guidance, which are also employed by Teays River when reporting to the Second AP Fund. A summary of the ways managers work with this Guidance is shown below.

The **First Guideline** concerns the need to support environmental sustainability by promoting measures that, for example, reduce the risk of soil erosion and ensure improved water management. The water issue is crucially important, both in environmental and economic terms. For this reason, there is ongoing investment to achieve greater efficiency in water management, as in the construction of water storage tanks and the introduction of more effective irrigation techniques. To achieve better control, one of the environmental indicators is the percentage of farmland featuring detailed data on water consumption. To reduce the risks associated with the

employment and storage of pesticides and fertilizers, the managers of these farmland assets are engaged in introducing programmes that will ensure the correct management of chemicals.

The acquisition of farmland is always preceded by an environmental assessment, conducted by an external party. The consultant commissioned to conduct the assessment, if required, shall propose measures to reduce the risk of environmental impact.

The **Second Guideline** addresses respect for labour and human rights. In precisely the same way as for the environment, an assessment is conducted by the Fund's managers to determine any risks or impact associated with the operations. This forms an integral part of the evaluation process prior to the acquisition of agricultural real estate. To reduce risks affecting migrant and/or seasonal workers, who are engaged mainly in picking fruit and vegetables, TIAA is working to establish third-party-certified programmes to ensure their health and safety.

The **Third Guideline** addresses the use of, and rights of ownership to, land and other natural resources. Such issues are often

Key performance indicators for PRI's Guidance for Responsible Investment in Farmland, %

| | | |
|--|---|--------------------------------------|
| Guideline 1 Promoting environmental sustainability | | |
| Environmental integrity | Percentage of farmland acquired during report period subjected to environmental assessment by an independent third party | 100 |
| | Percentage of farmland owned more than a year and which has been assessed by the manager | 100 |
| Chemicals management | Percentage of farmland devoted to annual crops for which detailed data on pesticides and inorganic fertilizers is available | 98 |
| | Percentage of farmland devoted to perennial crops, vegetables or berries for which detailed data on pesticides and inorganic fertilizers is available | 58 |
| Soil health | Percentage of farmland subject to regular testing for quality, pH and nutrients | 100 |
| Water management | Percentage of farmland that relies on irrigation featuring detailed data on water consumption | 81 |
| | Percentage of these farms that implement water conservation techniques | 100 |
| Guideline 2 Respecting labour and human rights | | |
| Labour compliance | Percentage of tenant farmers/operators that observes national labour legislation | 100 |
| Health and safety | Percentage of farmland inspected in the past year to determine compliance with health and safety regulations | 59 |
| Guideline 3 Respecting existing land and resource rights | | |
| Ownership and local land rights | Percentage of investments featuring a formal registration of title to land and where an investigation has been conducted to verify previous ownership history | 100 |
| | Percentage of agricultural activities operating in compliance with legislation for the protection of native right | 100 |
| Guideline 4 Upholding high business and ethical standards | | |
| Investment ethics | Percentage of investment staff to have participated in an annual course in business ethics | (Westchester) 93 (Teays River) 90 |
| Guideline 5 Reporting on activities and implementation | | |
| | Under the heading 'Reporting on implementation of PRI's Guidance for Responsible Investment in Farmland' in this report | |

Based on data for 2015.

especially important in developing countries, where systems that determine who is formally entitled to farm and/or own the land may not always exist. In those countries where the Second AP Fund has agricultural investments, Brazil is the only one where it can be difficult to determine the rightful owner of an agricultural property. For this reason, managers in Brazil conduct thorough research to establish the rightful owners of the land from the present day all the way back to its original sale by the government. Techniques utilized in this process include geo-references (GPS coordinates) and satellite images. The asset manager also engages in a dialogue with representatives from the local community and landowners.

Prior to acquisition of an agricultural property in Brazil, the manager will have assured that the investment will have no negative impact on the local environment and that no uncertainties exist concerning the rightful ownership of a property. Since 2000, Brazil has instituted a requirement that, in the case of a transfer of ownership, all properties shall be registered using GPS coordinates.

The **Fourth Guideline** addresses business ethics. Managers and operators shall respect and implement processes that combat all forms of corruption. Laws shall be respected even when weakly implemented. Employees have received training to deal with corruption issues. Managers shall require employees to observe the legislation and regulations devoted to good business ethics. The majority of managers and operators in the USA have attended courses on American corruption legislation, enshrined in the Foreign Corrupt Practices Act.

No misdemeanours or disputes have been reported in connection with the agricultural investments made by the joint-owned companies in the past year.

The **Fifth Guideline** concerns reporting on activities and implementation of the Guidance for Responsible Investment in Farmland. The Second AP Fund has elected to include this reporting in its annual Sustainability and Corporate Governance Report. This is now the fifth year that the Fund has reported on its progress in implementing the Guidance.

TIAA's reports on how it has implemented the Guidance may be downloaded from: <https://www.tiaa.org/public/assetmanagement/strategies/alternatives/agriculture>

Sustainability audits of farmland properties in Brazil

TIAA-CREF Global Agriculture's (TCGA) farmland properties in Brazil are leased to Brazilian tenants and operators. In 2015, BSD Consulting, a global sustainability consultancy, audited all TCGA properties in Brazil with a focus on operational compliance concerning working conditions, occupational health and safety, environment and integrity. TCGA's Environmental, Social and Governance Council, which includes AP2, worked with TCGA's Manager ("Manager") in implementing the audit. The audit's aim was to assess the

adherence to Brazilian regulations, PRI Guidance on Responsible Investment in Farmland and/or commitments related to sustainability certifications.

The audit process

The audit process was divided into four phases. In order to facilitate and prepare for the on-site visits, the tenants were asked to complete a pre-questionnaire (phase one). TCGA's farmland portfolio was leased to 14 tenants at the time of audit. The BSD audit team visit took one to three days per farm (phase two). In phase three, the BSD auditors completed the audit report and an action plan for non-compliances with clear deadlines targeted for resolution. The audit report findings were communicated to the Manager and then shared with the tenants. In the fourth phase, the action plans were followed-up by the Manager. The defined deadlines for corrective actions ranged from immediate to 30, 90 or 365 days depending on the issue. The audits covered the following areas:

1. Compliance with local legislation
2. Child labour
3. Forced labour
4. Freedom of association and collective bargaining
5. Hours of work
6. Community safeguarding
7. Health and safety
8. Compensation
9. Working and living conditions
10. Environmental impacts
11. Pesticides/Fertilizers.

The BSD audit team grouped their findings into two categories, non-compliance and observations. Non-compliance items related to Brazilian mandatory regulations and observation items related to best practice standards such as the PRI Guidance on Responsible Investment in Farmland and/or sustainability certifications. The auditors also evaluated each tenant's management program and classified each as good, regular, basic or informal.

BSD provided a Farm Assessment Report to TCGA for each farm with information concerning the management process and description of non-compliance items and observations.

An audit report was also provided to the tenant. The tenant's report was developed in a spreadsheet format to facilitate its use as a follow-up tool for the findings identified in the audit, including suggested deadlines for each item.

The audit results

A total of 122 non-compliance items and 159 observations were identified during the audit. Some of the non-compliance

items and observations were related to policies and controls while others related to physical findings. Physical findings related to issues identified on-farm or at the tenant's headquarters (e.g. first aid kit missing) whereas policy/control findings related to a tenant's failure to have a formal policy or control procedure to address various audited items (e.g. no policy for scheduled machinery inspections in place). As can be seen in the figure below, a majority of the issues identified were related to missing policies or controls and management of agrochemicals (pesticides and fertilizers).

As a consequence of the audit, the Manager reached an agreement with one tenant to cancel the remaining lease contract, as the evaluation of the tenant's management system also revealed that the tenant was not able to manage and monitor the audited issues in an appropriate manner. This tenant comprised approximately 20 percent of all non-compliance items, including the non-compliance item regarding "forced labour." According to Brazilian regulation, the employer needs to offer transport to workers when public transport is not available or does not reach the farm. As the tenant did not provide employees with transportation to the nearby city, the tenant received a non-compliance score.

Overall, the audit showed that tenants with sustainability certifications have better control and processes to ensure compliance with regulations.

Follow-up

The audits illustrated that a majority of TCGA's tenants have good management systems, but non-compliance and/or observa-

tion items were identified at all farms. In order to assist tenants, TCGA's Manager has modified the site visit process to include more expansive review of the tenants' operations, including a visit to their farm headquarters even when outside of TCGA-owned land. The management has also developed a detailed tenant code of conduct, which has been shared and discussed in person with each tenant. A governance and oversight process for the adherence to the code of conduct is under development. Finally, the Manager has also used the audit findings to further improve its due-diligence capabilities for new acquisitions.

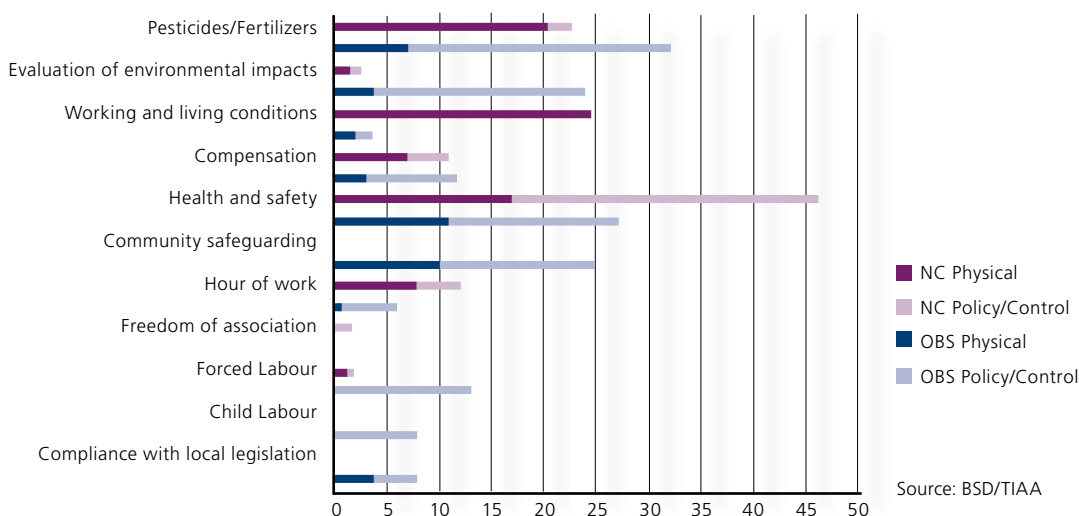
As part of the on-going monitoring program, TCGA's management intends to conduct its next third party audit for selected farms in TCGA and all farms in its second investment vehicle, TIAA-CREF Global Agriculture II, in 2018.

For more information visit www.tiaa.org/public/assetmanagement/strategies/alternatives/agriculture

A comprehensive structure

The Second AP Fund's programme for integrating sustainability as part of the investment process was evaluated by the Investment Integration Project (TIIP) in 2016. The project involved an analysis of 50 different investors throughout the world and the results were published in the report entitled 'Tipping Points 2016'. The primary criteria for inclusion in the study was that the investor was actively engaged in responsible and sustainable investments through the implementation of a comprehensive structure, specifically designed to promote change. The TIIP analysis highlights the Fund's focus areas, with particular reference to its work on climate-related issues. More information at www.tiipproject.com

BSD Audit Non-Compliance and Observations



Sustainable investments

The Second AP Fund invests about SEK 17 billion in assets/funds with a business strategy based mainly on sustainability. The Fund also has investments totalling SEK 19 billion in Vasakronan,

Cityhold Office Partnership, Castellum, Kungsleden, Fabega and Wihlborgs Fastigheter, all of which have been awarded Green Stars by the Global Real Estate Benchmark (GRESB).

| Investments based on sustainable strategies | Strategy | Asset class |
|--|--|-------------------------|
| Generation Im Global Equity Fund | Invests in companies based on a sustainable approach | Equity funds |
| Generation Asia Fund | Invests in companies based on a sustainable approach | Equity funds |
| Generation Climate solution | Invests in companies based on a sustainable approach | Private equity funds |
| R/C Pattern Energy Feeder | Invests in renewable energy | Private equity funds |
| Riverstone Renewable (two funds) | Invests mainly in power production from renewable energy sources | Private equity funds |
| Khosla Venture (three funds) | Invests in innovations that have a positive impact on social development | Private equity funds |
| Khosla Venture Seed (two funds) | Invests in innovations that have a positive impact on social development | Private equity funds |
| African Development Bank | Green bonds | Fixed-income securities |
| Agence Française Develop | Green bonds | Fixed-income securities |
| Asian Development Bank | Green bonds | Fixed-income securities |
| Berlin Hyp AG | Green bonds | Fixed-income securities |
| Bnp Paribas, Paris | Green bonds | Fixed-income securities |
| City of Gothenburg | Green bonds | Fixed-income securities |
| City of Paris France | Green bonds | Fixed-income securities |
| European Investment Bank | Green bonds | Fixed-income securities |
| Export Development Canada | Green bonds | Fixed-income securities |
| Export-Import Bank of Korea | Green bonds | Fixed-income securities |
| International Bank for Recon & Develop | Green bonds | Fixed-income securities |
| Intl Finance Corporation | Green bonds | Fixed-income securities |
| KFW | Green bonds | Fixed-income securities |
| Kommunalbanken AS | Green bonds | Fixed-income securities |
| Kommuninvest i Sverige | Green bonds | Fixed-income securities |
| Municipality Finance PLC | Green bonds | Fixed-income securities |
| Nederlandse Financierings-Maatschappij Voor Ontwikkelingslanden NV | Green bonds | Fixed-income securities |
| Nederlandse Waterschapsbank NV | Green bonds | Fixed-income securities |
| Nordic Investment Bank | Green bonds | Fixed-income securities |
| Ontario Province, Canada | Green bonds | Fixed-income securities |
| Rabobank Nederland NV (Emtn) | Green bonds | Fixed-income securities |
| Region of Île-de-France | Green bonds | Fixed-income securities |
| Republic of Poland | Green bonds | Fixed-income securities |
| Rikshem AB | Green bonds | Fixed-income securities |
| SNCF (Société Nationale des Chemins de fer Français) | Green bonds | Fixed-income securities |
| Statens Bostadfinansieringsaktiebolag, SBAB | Green bonds | Fixed-income securities |
| Stockholms Läns Landsting | Green bonds | Fixed-income securities |
| Instituto de Credito Oficial | Social bonds | Fixed-income securities |
| Inter-American Development Bank | Social bonds | Fixed-income securities |
| Molpus Woodlands Fund III | Forest assets | Real estate |
| Molpus Woodlands Fund IV | Forest assets | Real estate |
| Nordic Woodlands | Forest assets | Real estate |
| Australia New Zealand Forest Fund | Forest assets | Real estate |
| Australia New Zealand Forest Fund 2 | Forest assets | Real estate |
| Global Timber Resources | Forest assets | Real estate |
| Lewis & Clark | Forest assets | Real estate |
| Women Entrepreneurs Opportunity Facility | Investment that facilitates loans to women in emerging countries | Alternative credits |

A low-angle, upward-looking photograph of numerous open umbrellas in shades of yellow, orange, and red. The umbrellas are densely packed, creating a canopy effect against a bright, overcast sky. The perspective makes the umbrellas appear to be reaching towards the center of the frame. A solid blue rectangular box is positioned in the upper-middle section of the image, containing the word "Climate" in a white, serif font.

Climate

Climate is one of the Second AP Fund's focus areas, which means that climate issues shall, where relevant, be integral to the analytical and decision processes employed for all asset classes. The intention is to develop the portfolio in line with the two-degree target. The Fund is also devoted to reducing its direct climate impact through its in-house environmental programme.

The Fund's statement on climate change

The Second AP Fund is a long-term investor. When conducting its analyses to determine future pension disbursements, the Fund adopts a 30 to 40-year perspective. It is therefore only natural to incorporate sustainability issues, which have a significant impact on social development. Climate constitutes one such issue. Limiting global warming to two degrees Celsius, or preferably 1.5 degrees, as agreed by the nations of the world at the Paris Climate Conference (COP21) in 2015, involves a clear change of course towards a society focused on zero net emissions of greenhouse gases. This target shall be achieved sometime after 2050.

The Second AP Fund's ambition regarding the climate is to develop the portfolio in line with the two-degree target. The initial focus of the Fund's climate efforts will be to reduce the climate-related financial risks and contribute to a transition. In December 2016, to explain how and why it is engaged in the climate issue, the Second AP Fund published a document of its approach to the transition towards a low-carbon economy (available at www.ap2.se).

Climate-related financial risks

Climate change is expected to have a major impact on the long-term return on invested assets. The Fund has an in-house working group focused on fossil energy and climate-related financial risks. It has been analyzing the climate-related financial risks posed by fossil energy and coal-based power companies since 2013.

During 2016, the Fund conducted follow-ups on the climate-risk analyses carried out on fossil-energy companies and the power sector, resulting in disinvestment from eleven coal producers, eight oil-and-gas companies and ten power companies. One oil-and-gas company has been reintroduced to the Fund's benchmark index, since it no longer met its criteria for disinvestment from companies in this sector. The Fund has disinvested from a total of 76 companies, due to climate-related financial risks.

In the spring of 2016, the index published by the Asset Owners Disclosure Project – which ranks the 500 largest investors according to how well they manage climate-related risks in their portfolios – ranked the Second AP Fund eighth in the world.

Contribute to the transition

The Second AP Fund is determined to actively contribute to the transition towards a two-degree society.

The Fund intends to do this through:

- Investment in sustainable strategies
- Dialogue with companies
- Dialogue with decision-makers.

Several members of staff participate in seminars and conferences to present the Fund's progress with the climate issue, both in Sweden and internationally. In an advisory capacity, the Fund is involved in two interdisciplinary research initiatives, CICERO Climate Finance and the Centre for Collective Action Research at Gothenburg University.

Investment in sustainable strategies

To create a carbon-lean society demands, among other things, the transformation of power and transport systems. The Second AP Fund's investment in green bonds and forest assets are two examples of investment in sustainable strategies that have a positive impact on the climate. Several of the private equity funds in which the Fund invests focus on companies whose products and services enable resource efficient solutions.

The Second AP Fund has some SEK 17 billion invested in assets/funds with a business strategy based mainly on sustainability (see the table on page 20).

Dialogue with companies

In 2016, in collaboration with a large number of fellow investors, the Second AP Fund presented a shareholder proposal at the Glencore, Anglo American and Rio Tinto AGMs. The proposal addressed the idea that these companies should expand reporting on their greenhouse emissions, the assessment of project portfolios in terms of relevant post-2035 scenarios, their plans for research and development into low-carbon energy solutions and how they intend to integrate sustainability as part of their strategic key performance indicators and bonus systems.

The boards of all three companies recommended that shareholders support the proposal. At Glencore's AGM, the proposal was approved by 98 percent of the participants, while shareholders at the Anglo American and Rio Tinto AGMs voted to approve the proposal by 96 and 99 percent respectively.

This proposal is similar to that presented at the BP, Shell and Statoil AGM's in 2015. The Second AP Fund has conducted an analysis of Statoil's reporting procedures and concluded that the

company has developed in line with the shareholder proposal. This has been communicated to the company. As for Shell, the company has improved its reporting, but more data is needed to assess progress concerning its strategic climate improvement efforts. Together with 30 other investors, the Second AP Fund presented a document about the company's reporting at the Shell AGM. This statement may be found at www.iigcc.org

In the spring of 2015, with 18 other investors, the Second AP Fund wrote a joint letter to Shell in which the company was urged to leave industry organizations that are sceptical about climate change and that lobby against the company's own targets for reduced carbon emissions. In August 2015, Shell announced that it would be withdrawing from its membership of the the climate-sceptical US lobbying organization ALEC.

“ In August 2016, the Second AP Fund and 129 other investors throughout the world published an open letter to the leaders of the G20 nations, in which the governments were urged to ratify the Paris climate agreement as soon as possible.

Dialogue with decision-makers

The Second AP Fund has for several years now been a member of the Institutional Investor Group on Climate Change (IIGCC). The IIGCC was extremely active during 2015 and 2016, both before and after the Paris climate conference. The organization is engaged both in clarifying investors' commitment to the climate issue for decision-makers and in presenting investors with policy measures that would facilitate increased investment in climate-smart solutions. Among other activities, the IIGCC has jointly published a document known as the Global Investor Statement on Climate Change, together with a number of other investor organizations. This document explains how investors can contribute and the expectations investors have of their governments. More than 400 investors have aligned themselves behind this document.

In August 2016, the Second AP Fund and 129 other investors throughout the world published an open letter to the leaders of the G20 nations, in which the governments were urged to ratify the Paris climate agreement as soon as possible. The letter also pointed out that these governments must shoulder the heavy responsibility, with the private sector, of enabling a sufficiently rapid adjustment of climate impact to ensure that the two-degree target can be met. The letter also features concrete recommendations to the governments of the G20 nations.

Research initiative

CICERO (the Center for International Climate and Environmental Research – Oslo) is Norway's premier research institute in interdisciplinary climate research. Since 2008, among its many activities, CICERO has conducted independent assessments of green bonds. In 2016, the Center formed CICERO Climate Finance, which has been established to support investors with expertise about climate-related risks and to demonstrate how investors can utilise this knowledge in their decision-making processes. The starting point is current climate research and the work is conducted in close collaboration with the financial sector. An advisory board will be responsible for overseeing the quality of this research and will contribute its expertise on specific subjects. The Fund's head of fixed-income securities is part of this panel, with other representatives from several of the world's largest investors as well as leading 'green' financial players. More about the work of the Center at www.cicero.uio.no/en

The Second AP Fund is a member of the steering committee of the Centre for Collective Action Research (CeCAR), an interdisciplinary research programme operated by Gothenburg University. The Centre is studying the conditions necessary to large-scale collaboration and one of the research projects focuses on climate change. More about this at www.cecar.gu.se

Carbon footprint

The Second AP Fund is positive to measuring and reporting investments' climate emissions, as part of its broader climate programme. Carbon footprints provide important data, but there are limitations (see table on the next page).

In 2015, the AP Funds formed a working committee with representatives from each AP Fund to coordinate the Funds' reporting on carbon footprints. In autumn 2015, the Second AP Fund, together with the other AP Funds, presented a joint summary of how to report the carbon footprint. The AP Funds' carbon footprint is calculated for holdings as per December 31 of the current year, based on the latest available data for direct carbon emissions (Scope 1) and indirect emissions from purchased energy (Scope 2). The carbon footprint for the portfolio of listed equities is calculated in relation to the degree of the AP Funds' participation in the com-

Benefits and limitations of carbon footprint

| Carbon footprint – benefits | Carbon footprint – limitations |
|--|--|
| Provides data for assessing certain climate-related financial risks, such as a price for carbon emissions. | Fails to measure the investments' total climate impact because: <ul style="list-style-type: none"> – Only certain emissions are included – Emission data from companies is incomplete – Only certain asset classes are measured – Reduction in emissions from products and services is not calculated – Information on fossil reserves is not included. |
| Can provide basis for influencing companies regarding demands such as emission-reduction targets, risk management, business strategies and transparency. | Fails to measure a portfolio's total climate-related risks, such as physical risks from extreme weather, flooding and drought or the consequences of additional legislation about energy efficiency. The carbon footprint is no measure of a portfolio's total climate potential or how well a portfolio is positioned for the transfer to a carbon-lean society. |
| Improves the AP Funds' transparency and encourages industry to provide greater transparency and better data. | Fails to measure what is required to achieve the two-degree target and offers no help on how investors can contribute to its attainment. A narrow focus on the individual portfolio's reduced carbon footprint risks diverting attention from actual reductions in emissions and how investors can realise solutions for a carbon-lean economy. |

panies. No adjustment is made for double counting emissions. Double counting means that emissions are counted twice, as when the emissions derive from power companies: they can be counted as direct emissions for the power company and as indirect emissions for companies that purchase the electricity.

All AP Funds report their carbon footprints using the following three indicators:

1. The absolute carbon footprint for the portfolio of equities, corresponding to the Fund's share of the companies' combined emissions (tCO₂e).
2. Carbon intensity, where the absolute carbon footprint is related to the Fund's share in the companies' market value (tCO₂e/SEKm).
3. Carbon intensity, where the absolute carbon footprint is related to the Fund's share in the companies' turnover (tCO₂e/SEKm).

During 2016, the working committee met to evaluate the AP Funds' carbon footprint reporting for equities, as well as to study the potential for the coordinated carbon footprint reports for other asset classes.

This evaluation shows that the AP Funds' proposals to standardize indicators, presented in November 2015, were well disseminated and helped increase awareness of the benefits and limitations of the carbon footprint, internationally as well as in Sweden. To further clarify the proportion of the AP Funds' capital assets that are carbon footprinted, the working

committee proposes that the AP Funds' 2016 reports should also contain the following:

1. The percentage of share capital included in the carbon footprint of each AP Fund.
2. The percentage of total fund capital included in the carbon footprint of each AP Fund.

Over the year, the working committee assessed the potential for coordinating carbon footprint indicators for other asset classes. However, the AP Funds note that both methods and data are under development and have therefore decided to bide their time concerning a coordination. The AP Funds' collaboration on coordinated reporting will continue in 2017, with a view to drafting proposals concerning carbon report indicators for other asset classes.

Because of the AP Funds' varied investment strategies and allocations to different financial assets, the carbon footprints for the Funds' investments also vary in size. These differences are increased still more by the fact that the underlying data for portfolio companies must sometimes be adjusted, added to or simply estimated. This means that even the choice of supplier selected to calculate the carbon footprint can to some extent affect the result. Consequently, the carbon footprints reported for the different AP Funds are not fully comparable.

The listed portfolio's carbon footprint

As early as 2009, the Second AP Fund conducted an extensive project to analyse its listed portfolio's carbon footprint. By gathe-

ring data from all the companies in the portfolio, based on its holdings in each company, it was possible to calculate the total carbon emissions generated by its combined holdings. For the Fund this analysis contributed to a more profound understanding of the cost of carbon emissions. If companies are forced to pay for their emissions, this will impact on their profits and cash flow. The market value of these companies will be affected by the impact such costs may have on future profits. This is why it is important that companies report their carbon emissions.

For 2016, the Fund is reporting the carbon footprint for its portfolio of listed equities using the indicators agreed by the AP Funds. These indicators are based on the Fund's share in the companies' combined emissions. They refer to the companies' total carbon emissions for the stocks held. No distinction is made between emissions, whether related to the companies' shares or bonds. The analysis is based on data from MSCI ESG Research. Data for determining the Second AP Fund's carbon footprint is available for 97 percent of its share capital, 63 percent of which is contained in reports and 34 percent of which is based on estimates. This carbon footprint is calculated for listed equities that constitute some 44 percent of the Fund's total capital assets.

The absolute carbon footprint for the Second AP Fund's total portfolio 2016 is 2 676 000 tCO₂e. If the footprint is related to the Fund's share in the portfolio companies' market value, this produces a carbon intensity of 20 tCO₂e/SEK m, which may be compared with that reported for 2015, which was 25 tCO₂e/SEK m. If the footprint is related to the Fund's share in the companies' turnover instead, this results in a carbon intensity of 24 tCO₂e/SEK m, which may be compared with that reported for 2015, which was 29 tCO₂e/SEK m. That the Fund's carbon footprint declined is, mostly, attributed to changes in the Fund's portfolio, but also to the companies' declined levels of emissions.

Carbon intensity differs substantially between the Fund's various portfolios. Carbon intensity for the Swedish portfolio of equities is 4 tCO₂e per million invested kronor. For other developed markets, the figure is 18 tCO₂e/SEK m and for emerging markets 39 tCO₂e/SEK m. Carbon intensity is highest for emerging markets because these markets feature many companies in the raw materials sector that are responsible for substantial carbon emissions.

Carbon footprint for other asset classes

The Second AP Fund hopes eventually to present a carbon footprint that comprises all asset classes. For 2016, the Second AP Fund has calculated the carbon footprint for listed equities, listed corporate bonds, forest assets and traditional real estate. This means that 62 percent of the Second AP Fund's capital assets are measured by some form of carbon indicator.

For 2016, the Second AP Fund has calculated the absolute carbon footprint from its investments in corporate bonds by distributing the companies' emissions proportionately between equities and fixed-income securities. For this portfolio, carbon data is only available for 59 (50) percent of its market value. The absolute carbon footprint for the portfolio of corporate bonds is 55 000 (48 000) tCO₂e. The portfolio's carbon intensity is 2.8 (4.5) tCO₂e/SEK m, based on the bonds' market value.

The Second AP Fund possesses carbon data for 86 percent of its non-listed real-estate portfolio. Based on market value, the portfolio's estimated carbon intensity is 7 tCO₂e/SEK m.

The Fund maintains a dialogue with fund managers concerning the calculation of carbon storage and carbon emissions. New Forests, one of the Fund's asset managers, has calculated the total carbon stock for its forest assets. The Second AP Fund's share is approximately 4.5 million tCO₂e. However, this figure relates to the amount of carbon stored in the trees, not the

The Second AP Fund's carbon footprint for listed equities

| | 2016 | 2015 | 2014 |
|--|-----------|-----------|-----------|
| Companies' absolute emissions of greenhouse gases (Scope 1 and 2) (tCO ₂ e) ¹ | 2 676 000 | 3 372 000 | 3 621 000 |
| Carbon intensity related to the share in the companies' market value (tCO ₂ e/SEK m) ² | 20 | 25 | 28 |
| Carbon intensity related to the share in the companies' turnover (tCO ₂ e/SEK m) ³ | 24 | 29 | 31 |
| Market value of the Fund's portfolio for which CO ₂ e-data is available (SEK m, Dec 31 2016) | 135 353 | 148 533 | 127 562 |
| Amount of share capital for which data is available (%) | 97 | 98 | 93 |

¹ CO₂e (carbon equivalent) is a unit of measure that enables a comparison between the climate impact of different greenhouse gases.

² The sum of the Fund's share of portfolio-company emissions, divided by the sum of the Fund's share of these companies' turnover.

³ The sum of the Fund's share of its portfolio-company emissions, divided by the total market value of the Fund's holdings in listed equities.

Source: MSCI ESG Research/The Second AP Fund

amount absorbed during a year. The level of carbon storage achieved for 2015 is some 86 000 tCO₂e lower than for 2014, due to forest felling.

The Fund has conducted a sector analysis of the carbon footprint for private equity investments, employing carbon data from listed companies in different sectors and geographic areas, since the data for non-listed companies is extremely limited. This analysis showed that countries and sectors with high carbon emissions are not over-represented. The carbon footprint is in line with MSCI World.

Keen to improve reporting

Over several years now, through its membership of the CDP (Carbon Disclosure Project), the Second AP Fund has required the world's largest publicly quoted companies to report on their greenhouse emissions and other related data on how they are tackling the challenge of climate change. The Second AP Fund is keen to see that companies improve their climate reporting, given its realization of the importance of measuring and managing climate-related risks and opportunities.

Investor initiative backs carbon reporting

In November 2015, the Second AP Fund signed the Montreal Pledge, by which the Fund has agreed to annually measure and report on its carbon footprint. By December 2016, 134 investors had signed the initiative.

In-house environmental programme

The Fund works in a number of ways to highlight and minimize the environmental impact of its own activities. The introduction of an in-house environmental management system was therefore logical. Based on the Gothenburg City environmental certification programme, the Fund gained certification in January 2009 and has been recertified yearly since then. The system applies the same fundamental concepts as implemented by the major ISO 14001 and EMAS standards systems, but is better suited to smaller organizations.

The in-house environmental audit shows that the greatest environmental impact caused by the Second AP Fund's own business activities derives from the consumption of electrical energy and from carbon dioxide emissions in conjunction with travel. In-house goals have been established based on the Fund's environmental policy. The in-house environmental programme is managed by a specially appointed environmental group, and environmental training is ongoing for all members of staff. In 2015, the Second AP Fund signed a 'green' leasing agreement with its landlord, Hufvudstaden. Hufvudstaden and the Second AP Fund have an action plan with a view to minimizing the premises' environmental impact. Among other elements, this will involve the exclusive utilization of 'green' electricity, the implementation of measures to reduce energy consumption and improvements to waste management.

Meter readings for 2015 indicated a rise in power consumption. In 2016, the Fund conducted an analysis of its power consumption to clarify the apparent sharp increase during 2015. This revealed that an electrical metering device, replaced at the end of 2014, had been incorrectly programmed. Consequently, the Fund's power consumption data for both 2014 and 2015 has been corrected.

Environmental data

| | 2016 | 2015 | 2014 |
|---|---------|---------|---------|
| In-house environmental indicators | | | |
| Electricity, kWh | 114 300 | 127 500 | 142 900 |
| Renewable electricity, % | 100 | 100 | 100 |
| Copy paper, purchased (A4), kg | 755 | 820 | 991 |
| No. of sheets printed | 228 000 | 249 500 | 279 800 |
| Business trips | | | |
| Rail travel between Gothenburg and Stockholm, % | 84 | 85 | 78 |
| Emission of greenhouse gases från: | | | |
| Domestic rail travel, tonnes CO ₂ e | 0 | 0 | 0 |
| Domestic air travel, tonnes CO ₂ e | 9 | 8 | 9 |
| Air travel abroad, tonnes CO ₂ e | 199 | 171 | 158 |

Corporate Governance



The Annual General Meeting (AGM) is the main forum where shareholders can exert their influence. As a shareholder, the ability to exercise one's voting right at the AGM offers the best way to influence a company – which is why the Second AP Fund is active at both Swedish and foreign AGMs.

A considerable portion of the Second AP Fund's capital is invested in Swedish and foreign equities, making the Fund a significant shareholder. The Fund is also non-political and independent, both in terms of ownership and of its special status among Swedish agencies regulated by law, allowing it to act as a committed and long-term investor. Shareholder commitment and interest in a company's long-term development is a crucial requirement for better value growth. As a long-term investor, the Second AP Fund fulfils an important function on the world's capital markets. Consequently, the Fund is actively engaged in promoting good corporate governance, high ethical standards and an enlightened environmental approach, as well as best practice within asset management. In its contacts with publicly-quoted companies, the Second AP Fund is active in the run-up to and during Swedish and foreign AGMs, as well as engaging in dialogue with the boards and executive managements of its portfolio companies.

In Sweden, the Second AP Fund works mainly with companies in which it is one of the largest shareholders or in which it has invested the most capital. In the case of companies outside Sweden, the Fund mainly addresses ethical and environmental issues via the Ethical Council. Other shareholder issues of special interest to the Fund, when related to foreign companies, are handled in collaboration with selected partners. The Second AP Fund also promotes good corporate governance by collaborating with other investors on matters of principle and through active participation in the development of policies, regulations and standards.

Corporate governance in Swedish companies

Swedish AGMs

The Fund has holdings in some 140 Swedish companies. It has decided that it is impractical to attempt to attend and vote at the AGMs of all the companies represented in its portfolio of Swedish equities. In determining which AGMs to attend, the Fund employs the following criteria:

- Companies that are among the Fund's 20 largest holdings.
- Companies in which the Fund's voting rights exceed one percent of capital.
- Companies in which the Fund is among the ten largest shareholders.
- Companies with controversial issues on the agenda.

The Second AP Fund exercised its voting rights at a total of 47 AGMs of Swedish publicly quoted companies during 2016. The Second AP Fund and other institutional investors have for many years enjoyed a positive and constructive dialogue with Swedish publicly quoted companies, which have included discussions about many of the issues raised at AGMs.

Issues in focus

During the year, the Second AP Fund has maintained its focus on remuneration issues and engaged in a number of dialogues with corporate boards, concerning the formulation of incentive programmes, with a view to promoting improvements. For several years now, the Second AP Fund has stressed the importance of increasing the number of women on the boards of publicly quoted companies and duly observes this principle when partici-

“During the year, the Second AP Fund has maintained its focus on remuneration issues and engaged in a number of dialogues with corporate boards, concerning the formulation of incentive programmes, with a view to promoting improvements.”

pating in the nomination process. The Fund also feels that nomination committees should draft a concrete plan to attain the most appropriate board composition, with respect to gender, age, background, experience and competence. During this year's AGM season, the Fund has placed special emphasis on diversity and, in particular, on the percentage of women on corporate boards. Read about the Second AP Fund's annual Female Index at www.ap2.se

Individual board selection

At the start of the year, the Second AP Fund distributed a letter to boards and nomination committees in companies whose AGMs the Fund planned to attend. In this letter, the Fund urged companies with significant foreign ownership to review the way they formulate their notices to AGMs concerning the election of board members.

In Sweden, it has been common practice to nominate and elect board members as an entity – all board members are elected by a joint decision. This is not really surprising, since in Sweden we are used to assigning joint responsibility to boards. The Swedish Companies' Act, however, clearly states that board members shall be selected on an individual basis and not as a collective, regardless of the way the actual decision is formulated.

In conjunction with the revision of the Swedish Corporate Governance Code by the Swedish Corporate Governance Board (Kollegiet för svensk bolagsstyrning), a discussion was held as to just how the process of selecting board members should be conducted. A large number of foreign shareholders had written to the Swedish Corporate Governance Board and pointed out that what is common practice in Sweden actually makes it very difficult for them to vote against proposals involving the individual member of a board. This is because the agenda is formulated so that the selection of a board is implemented in the form of a single joint decision, which means that the voting instructions normally utilized by foreign shareholders are formulated so that board selection is addressed as a group. For example, if alternative proposals for boards are presented during the AGM and the voting thereby becomes individual instead, foreign shareholders' votes can be declared void.

Most foreign shareholders are highly professional and are well informed as to how Swedish corporate governance works. The Second AP Fund is determined to ensure that all shareholders' votes shall count and therefore urged portfolio companies featuring significant foreign ownership to enable their shareholders to select board members on an individual basis.

Several companies formulated their notices to shareholders in compliance with the Fund's wishes.

Invitation to companies to state their position on the UN's Sustainable Development Goals

In a letter to the chairs of some 40 Swedish companies, the Fund urged more companies to align their business activities with the United Nation's 17 global sustainable development goals and to declare their position on these goals. More on this initiative on page 40.

Nomination committees

The Second AP Fund favours having a representative on the nomination committees of portfolio companies, as this provides a valuable opportunity to exercise investor influence. The Fund practices a policy of accepting all invitations to participate in the nomination process. The Fund's governance committee decides who is to represent it, based on whoever is best qualified for the task. Since nomination committees usually consist of the three to five largest shareholders in a company, the Fund's nomination assignment varies, depending on the size of its holding.

Prior to the start of the 2016 AGM season, the Fund was represented on nomination committees for Opus Group, Tele2, Formpipe, Boliden, Coor Service Management, Nordax, Lundin Petroleum and Kungsleden. In the run-up to the 2017 AGM season, the Fund was represented on the nomination committee for Opus Group, as chair, as well as on nomination committees for Castellum, Coor Service Management, IAR Systems, Kindred (Unibet), Kungsleden, Midsona, Resurs Holding and Swedish Match.

Nomination committees in which the Second AP Fund participated in 2016

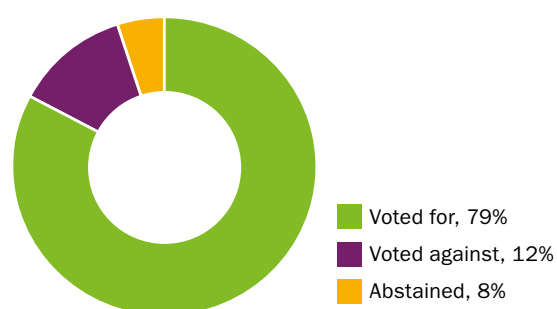
| Company | Women on board, % | Number of newly elected women | Total change as per previous year |
|-------------------------|-------------------|-------------------------------|-----------------------------------|
| Boliden | 37.5 | 0 | 0 |
| Coor Service Management | 37.5 | 1 | 1 |
| Formpipe | 40 | 0 | 0 |
| Kungsleden | 57 | 0 | 0 |
| Lundin Petroleum | 37.5 | 0 | 0 |
| Nordax | 37.5 | 1 | 1 |
| Opus Group | 50 | 2 | 2 |
| Tele2 | 50 | 2 | 2 |

Corporate governance in foreign companies

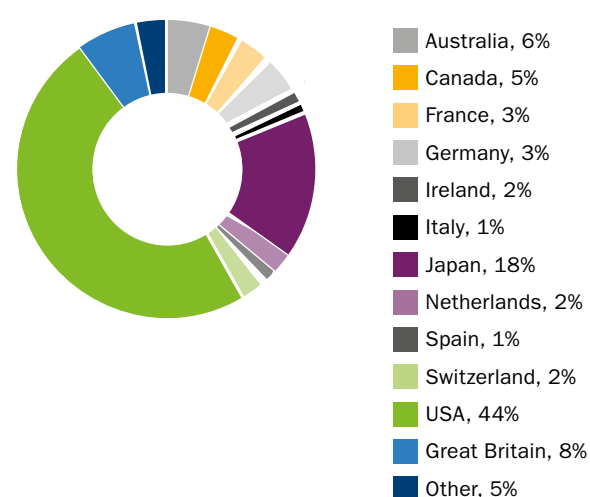
Foreign AGMs

Since 2008, to improve the governance of its foreign investments, and in cooperation with the First, Third and Fourth AP Funds, the Second AP Fund has operated a joint electronic voting platform, based on the AP funds' governance policies. Most issues are managed automatically via the voting platform, with the exception of matters such as remuneration issues,

Voting agenda items, 2016



Voting per market, 2016



No. of board and shareholder proposals that the Second AP Fund voted on in foreign companies in 2016

| Area addressed | Board proposal | Investor proposal |
|--|----------------|-------------------|
| Auditors, financial reporting, formalia etc. | 1 273 | 0 |
| Board | 7 244 | 9 |
| Remuneration issues | 1 034 | 38 |
| Capital structure | 520 | 0 |
| Group structure, agreements, acquisitions etc. | 117 | 2 |
| Shareholder rights/governance | 116 | 141 |
| Sustainability | 0 | 180 |
| Other | 4 | 30 |
| Total | 10 308 | 489 |

Voting at foreign AGMs, 2016

| | Number |
|---------------------------------------|--------|
| No. of AGMs | 803 |
| Agenda items | 10 708 |
| Voted against board's recommendations | 2 459 |

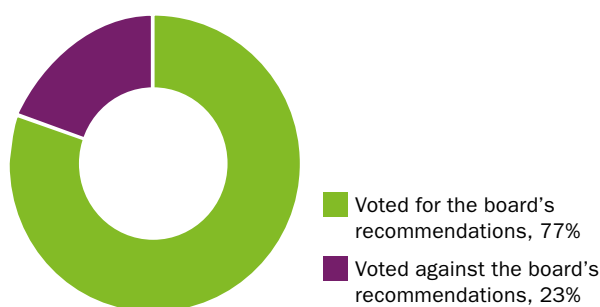
which are forwarded to the funds for individual assessment. Each fund decides individually as to how it will vote.

On foreign markets the Fund mainly votes in the following eleven countries: Australia, Canada, France, Germany, Great Britain, Italy, Japan, the Netherlands, Spain, Switzerland and the USA. The criteria for determining the companies in which the Fund should exercise its voting rights derive mainly from the MSCI global index. There are other criteria too, such as when the Fund is engaged in a dialogue on a specific issue with a company and/or when the Fund has submitted a shareholder proposal for consideration by the AGM. In 2016, the Second AP Fund exercised its vote at 803 foreign AGMs. The Fund employs an external party for the practical voting process and submits a written vote (proxy voting) using the electronic voting platform.

Every month, the Fund publishes a detailed account on its website stating how it had voted at foreign companies' AGMs.

More on how the Second AP Fund voted at various company AGMs at www.ap2.se/sv/hallbarhet-agarstyrning/agarstyrning/global-rostning/

Voting in foreign companies 2016



Letters to foreign companies

In collaboration with other international investors, the Fund has engaged in numerous dialogues on governance with companies during the report period.

Every year, to further improve communication with its foreign portfolio companies, the Second AP Fund has written to some 50 of these companies, clarifying its views on active governance and

the importance of exercising voting rights. In these letters, the Fund also explains the reasons it has felt unable to support the recommendations of the boards on specific proposals. In several cases, these letters have resulted in further contact with the companies in question, sometimes by letter but also in the form of teleconferences.

Collaboration with other investors

As well as its collaboration with the AP Funds in the Ethical Council (more on page 37), the Second AP Fund is a member of and actively supports a number of Swedish and international initiatives involving the environment, business ethics and corporate governance. The Fund also collaborates with other investors in promoting new legislation, primarily within the field of corporate governance. This form of collaboration is growing in importance as a way to promote and achieve change and thereby improve long-term share value. More about the Second AP Fund's memberships and initiatives at www.ap2.se

At the close of 2015, in collaboration with several other international investors, the Fund wrote a letter to Exxon Mobile and Chevron, urging them to withdraw their support from organizations that are undermining climate policies in California. The Fund has, during 2016, also participated in a number of PRI initiatives.

Shareholder proposals

During the year, together with several other investors, the Fund presented a shareholder proposal on climate-related risks to the AGMs held by Rio Tinto, Glencore and Anglo America. The proposal was a continuation of the shareholder proposal (Aiming for A) that the Fund had presented at the Shell, BP and Statoil AGMs in 2015. The boards of all three companies recommended their shareholders to approve the resolution.

The Fund also participated in an initiative at the Volkswagen AGM. This proposed that the company should appoint a special examiner to determine board and executive responsibility concerning the company's manipulation of emission data. The proposal suggested that the starting point for this examination should date from June 2006. The proposal was outvoted by the company's principal shareholder, but slightly more than 40 percent of free-float shares voted in favour.



Diversity

More and more women on corporate boards

According to the Second AP Fund's Female Representation Index (Female Index) for 2016, the ratio of women on the boards of publicly-quoted companies has now risen to 30.7 (27.9) percent. The ratio of women is continuing to rise within executive managements too. In 2016, this figure was calculated at 20.9 (19.5) percent. That the trend is in the right direction is demonstrated by the fact that 44.9 percent of the newly elected members of these corporate boards during the year are women.

The number of women on boards and executive managements is greatest in the 'large-cap' companies, the finance and consumer-goods industries tending to feature the highest number of

female board directors. The finance industry also features the highest percentage of female executives. The primary materials industry is notable for having the lowest ratio of women on boards. This said, there was nevertheless an increase in the ratio of women on the corporate boards of all industries surveyed.

The Second AP Fund's CEO, Eva Halvarsson, points out that "this indicates that owners and nomination committees have become better at fully utilizing the competence available in the marketplace and that the pace of change is accelerating."

The companies in the survey are all listed on Nasdaq Stockholm. More about the Second AP Fund's Female Index at www.ap2.se

The Second AP Fund invests in global programme to support female enterprise

To increase access to capital for female entrepreneurs and promote lending in emerging economies, the Second AP Fund invested USD 30 million in the Women Entrepreneurs Dept Fund (WEDF), which is part of the Women Entrepreneurs Opportunity Facility (WEOF). WEOF is a partnership between the Goldman Sachs 10,000 Women entrepreneurship programme and the IFC (International Finance Corporation). IFC is one of five institutions of the World Bank.

By participating in this venture, the Second AP Fund can contribute to economic growth in emerging markets, with the

emphasis on sustainability and female enterprise. Women in the emerging economies are an underutilized resource and investment in small and medium enterprises (SMEs) owned by women can promote increased growth.

This investment also offers the Fund opportunities to develop competence in diversity issues, which are a key area of the sustainability programme. The venture also offers opportunities for private investment in emerging economies, through collaboration with a world-leading player in this field. Furthermore, it provides diversification in other holdings in the form of alternative credits.

Broader perspective with Mitt Liv

The Second AP Fund supports Mitt Liv (My Life) and has been participating in the organization's mentoring programme for a couple of years now. This means that, every year, five employees are given the opportunity to act as mentors and coach individuals who come from a foreign background, to help them get a foot into the Swedish labour market. The Fund is convinced that this type of commitment contributes to increased understanding of diversity issues and forms part of the Fund's ongoing efforts in this sphere.

During the autumn, representatives from Mitt Liv also visited the Fund and gave a talk on how our society is changing and how a greater understanding of diversity can yield business benefits and contribute to better decision processes.

Mitt Liv is a social enterprise company that strives for increased diversity and integration on the Swedish labour market. The mentor programme helps bring together Swedish and foreign skills and insights, enabling the creative exchange of expertise and experience. Adepts receive personal guidance, gaining an understanding of how the Swedish labour market functions.

Transparency/reports

86%

62%



To ensure the smooth operation of a financial market, it is crucially important that the data supplied to shareholders and other interested parties is high quality. Only through transparency and openness can investors form a relevant impression of a company's situation and thereby have a basis for as accurate an assessment of its worth as is possible.

In accord with the EU directive, the Fund also believes that corporate annual reports should cover environmental, social and personnel related issues, as well as those involving human rights and corruption. Transparency and open reporting ensure investors acquire a better grasp of the risk and profit profile of the individual company.

For several years, the Fund has driven and supported various projects dedicated to improving transparency and the quality of reporting. Examples are the CDP (more on page 26) and the PRI Guidance for Responsible Investment in Farmland.

In collaboration with the private equity industry in eleven countries, the Fund has also been involved in the joint development of a framework that investors can employ when requiring companies to provide better reports. The Second AP Fund has addressed these issues in its evaluation of private equity funds.

Transparency in the oil industry

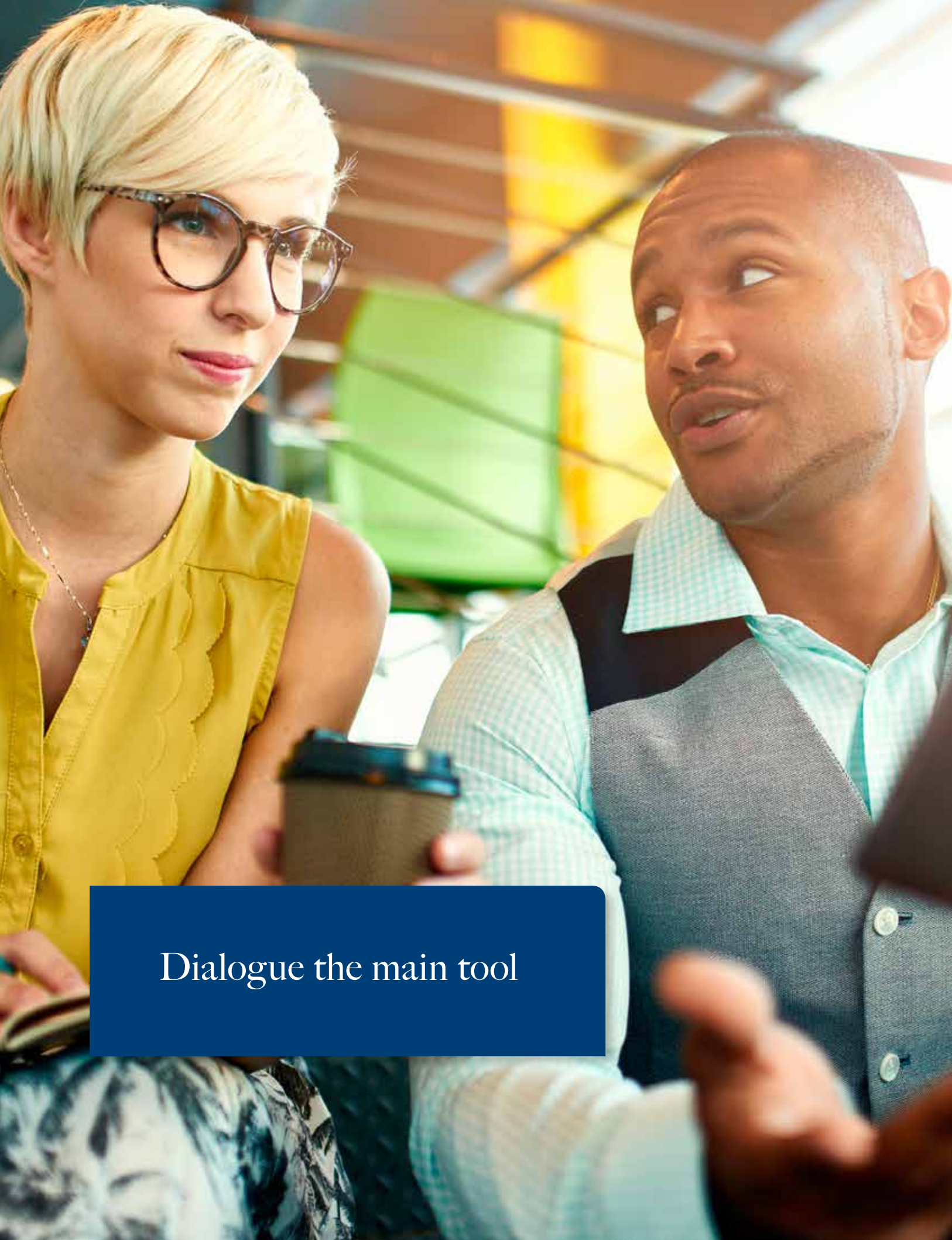
The EITI (Extractive Industries Transparency Initiative) is an initiative sponsored by the extractive industries, especially oil companies. The need for transparent reporting and control is particularly important in countries that are rich in natural resources, but led by weak governments. Clear and open reporting by the companies about what they pay and the governments of the host countries about the size of the revenues generated by the oil, gas and mining industries increases transparency within society and improves the prospects for economic control. In partnership with other international investors, the Fund supports EITI, sending a signal to countries and companies that are engaged in extractive operations that the shareholders place a value on clear and open reporting.

Read more at www.eiti.org

Second AP Fund reports

It is important that the Fund report its own activities and its progress on sustainability in an open and comprehensible manner. In addition to its Sustainability and Corporate Governance Report, information is available in the Annual Report and on the website. More detailed information on the work of the Ethical Council may be found in its Annual Report. Further details of how the Fund has implemented the PRI principles may be found in the responses to the annual questionnaire conducted by PRI. The Second AP Fund's responses are available on the Fund's and PRI websites.

“ For several years, the Fund has driven and supported various projects dedicated to improving transparency and the quality of reporting. Examples are the CDP and the PRI Guidance for Responsible Investment in Farmland.



Dialogue the main tool

As an active asset owner and manager of capital, dialogue is a vital tool, both in relation to companies and to society at large. The Second AP Fund engages in regular dialogues with its fund managers, as well as Swedish and foreign companies, concerning the environment, ethics and corporate governance.

Collaboration with other investors is important in ensuring that dialogues with portfolio companies are successful, as well as in encouraging a move towards more responsible investments. The Second AP Fund collaborates both with Swedish and foreign institutional investors.

The Ethical Council

Dialogues with foreign companies are coordinated through the AP funds' joint Ethical Council. The Ethical Council is a collaboration between the First, Second, Third and Fourth AP Funds, which was launched in 2007. The companies with which the Ethical Council conducts dialogues are identified primarily in conjunction with the Fund's biannual screening of its total shareholdings, with a view to determining whether any portfolio company is in contravention of an international convention. This screening is conducted by an external consultant. This work is based on the principles of commitment, action and change, with the intention of making a difference. The Ethical Council identifies companies that can be linked to breach of conventions and focuses on persuading such companies to deal with confirmed breaches and to implement systems and measures to preclude future violations. Dialogue is a vital tool in enabling the Ethical Council to influence corporate behaviour.

When companies in which the Fund has invested can be linked to the breach of an international convention, the Fund's core strategy is to exert its influence as an investor to ensure that such violations cease, that systems designed to prevent any recurrence are implemented – and that measures are taken to prevent any future violations. Through its commitment and by deploying its power as a major investor in reacting to breach of international conventions, as well as demanding change, the Fund can make a difference. Only in cases where this cannot be achieved the Fund will consider excluding its holdings in the company.

The Ethical Council has preventive and reactive investor dialogues with companies around the globe. The Ethical Council's Annual Report will be published in April, 2017. More on this at www.ethicalcouncil.com

Collaboration with other investors

In addition to cooperating with its fellow AP funds through the Ethical Council, the Second AP Fund also collaborates with other Swedish and foreign investors. During the year, the Fund has also exchanged ideas with Generation Investment Management and a number of others within the Fund's network about integrating environmental, ethical and corporate governance aspects into asset management.

“ In addition to cooperating with its fellow AP Funds through the Ethical Council, the Second AP Fund also collaborates with other Swedish and foreign investors.

The Second AP Fund is also a member of and actively supports various Swedish and international initiatives focused on the environment, ethics and corporate governance. The Fund also collaborates with other investors on influencing new legislation, mainly within the field of corporate governance. These forms of collaboration are becoming increasingly important as a means to influence and effect change, and thereby improve share value over the long term.

Collaboration on the climate issue

Through its membership of the IIGCC (Institutional Investors Group on Climate Change), the Fund collaborates with other European investors on climate issues. The idea is to make the voice of investors heard in the climate debate and to make companies, government agencies and other investors aware of the long-term risks and opportunities associated with climate change.

The climate issue is important to the Second AP Fund as a long-term investor. At present, there is considerable uncertainty about the future regulations and framework for reducing the emission of greenhouse gases and stimulating alternative energy sources. This makes it difficult for companies to make profitable investments and for investors to calculate the potential risks and returns. The IIGCC provides an effective platform for communicating investors' wishes concerning climate issues. It is also a good way for the Fund to acquire the latest information on climate related investments. More at www.iigcc.org

Further details of the Second AP Fund's memberships and initiatives may be found at www.ap2.se/en

Stakeholder dialogues

The Second AP Fund engages in ongoing dialogues with a number of stakeholder groups that are affected by or have an impact on the Fund's operations. The Fund does this partly under its own auspices and partly via the AP Funds' joint Ethical Council. The issues reported are selected according to the Fund's assessment of stakeholder expectations as well as its own priorities.

A selection of stakeholder dialogues during 2016

| Stakeholder | Type of dialogue | Report |
|--|--|---|
| Swedish Parliament and Government | <ul style="list-style-type: none"> • Individual meetings • External audit | <ul style="list-style-type: none"> • Annual Government evaluation |
| Other investors | <ul style="list-style-type: none"> • Knowledge exchange • Collaboration on corporate dialogues • Collaboration on joint initiatives | <ul style="list-style-type: none"> • Website • Sustainability & Corporate Governance Report |
| Portfolio companies | <ul style="list-style-type: none"> • AGMs • Individual meetings • Letter | <ul style="list-style-type: none"> • Website • Sustainability & Corporate Governance Report |
| The broad community (e.g. stakeholder organizations, students, general public) | <ul style="list-style-type: none"> • Individual meetings • Roundtable discussions • Questionnaires • Interviews | <ul style="list-style-type: none"> • Reports • Website |
| Staff | <ul style="list-style-type: none"> • Meetings • Daily dialogues • Staff appraisal | <ul style="list-style-type: none"> • Staff survey |
| Mass media | <ul style="list-style-type: none"> • Meetings • Dialogue | <ul style="list-style-type: none"> • Media coverage |

Excluded companies

If the Second AP Fund has reason to suspect that any of the companies in which it has invested is acting systematically and seriously in contradiction of an international convention to which Sweden subscribes, or to which it has expressed an intention of subscribing, the facts shall be investigated. This investigation shall include a dialogue with the company in question. If the Fund's suspicions are confirmed, the company will be asked to provide an explanation and to draft an action plan. In evaluating the situation, the Fund shall consider the nature of the contravention and any action that may have been taken (or that may be planned), to ensure that a contravention of this type is not repeated. If contact with the company fails to yield a satisfactory response, the Second AP Fund shall determine whether the company is to be excluded from its investment universe, subsequent to a general assessment. The Second AP Fund may also decide to exclude a company if the Fund considers the circumstances to be so serious as to make exclusion unavoidable, even where no convention has or can be proved to have been contravened.

Effective 2014, the Ethical Council has introduced a four-year time limit for reactive dialogues conducted with companies where convention violations have been verified by external experts. If the objective of the dialogue has not been attained within four years, the Ethical Council recommends that the AP funds dispose of their holdings in the company.

The Second AP Fund has decided to exclude 15 companies that are in breach of international conventions and where dialogue with these same companies has led to no improvements. The Fund makes this list public, in contrast to its disinvestments in certain companies, which are based on purely financial criteria. Information on companies excluded by the Fund may be found at www.ap2.se



Insights into how AP2
integrates sustainability

UN's Sustainable Development Goals

In September 2015, the 193 member nations of the United Nations unanimously adopted 17 global sustainable goals. These goals, which are to be achieved by 2030, are designed to eliminate poverty and create a sustainable world. The 17 global goals have been subdivided into 169 intermediary goals, which are to be measured using a variety of indicators. Each nation is responsible for implementing and monitoring these sustainable goals. Each nation is also encouraged to develop its own action plans. The UN will present the progress made on achieving these goals in an annual report entitled the Sustainable Development Goals Report. Achieving these goals will require collaboration between governments, civil society and the business community.

The Fund has been engaged in various ways in promoting the UN goals during the year. On several occasions, CEO Eva Halvarsson has stated how the Fund's investments are helping to further these goals, such as during her participation in a panel discussion in conjunction with the launch of the UN's new Sustainable Development Solutions Network Northern Europe, in Gothenburg, and at a conference in Australia.

The Fund is also collaborating to promote these goals in a venture initiated by the Swedish International Development Cooperation Agency (SIDA), in which the Fund, for example, is engaged in Goal 5: 'Achieve gender equality'.

The Fund's sustainability analyst is also included on the PRI Advisory Committee, for the UN's global sustainability goals.

During the year, in collaboration with some of Europe's largest pension funds, the Second AP Fund became a joint signatory to a policy document stating how important it is for institutional investors to invest in solutions that further the UN's Sustainable Development Goals. The Fund considers it important to achieve a joint definition of 'Sustainable Development Investments'. In the joint document, it urged other major institutional investors to adopt similar measures. This policy document was published in conjunction with the PRI conference in Singapore in September.

In 2016, the Fund also wrote a letter to more than 40 Swedish companies in which it urged them to report on how they relate their activities with the UN's 17 global sustainability goals. The Fund urged companies to report on their position concerning the UN's sustainability goals no later than on their 2017 AGMs. The Fund will be monitoring progress on this in the run-up to the spring AGMs.

Through its sustainability programme and the investments it makes, AP2 contributes in numerous ways to these UN Sustainable Development Goals. The Fund invests some SEK 17 billion in assets/funds with a business strategy based mainly on sustainability.

The Fund has also invested a total of SEK 19 billion in Vasakronan, Cityhold Office Partnership, Castellum, Kungsleden, Faberge and Wihlborgs Fastigheter, all of which have been awarded Green Stars by the Global Real Estate Benchmark (GRESB). More of this on page 20.

Examples of goals to which the Second AP Fund contributes:



Goal 1. End poverty – the Fund has invested in a social bond, intended to eliminate and combat poverty and inequality, as well as to promote sustainable economic growth in Latin America and the Caribbean. It invests SEK 34 billion in emerging market equities. These investments contribute to the funding and growth of companies' business operations and thereby to economic development.



Goal 3. Ensure health – the Fund has investments in private equity funds that in turn invest in companies whose strategy is healthcare development.



Goal 5. Achieve gender equality – since 2003, in its Female Representation Index (Female Index), the Second AP Fund has conducted an annual measurement of the percentage of women represented on the boards and executive managements of Swedish publicly-quoted companies. The Female Index is intended to promote informed debate about how the percentage of women on the boards of listed Swedish companies can be increased, as well as the diversity of these boards in terms of age, background, experience and competence.



Goal 7. **Ensure access to sustainable energy** – the Fund has investments in private equity funds that invest in renewable energy, as well as unit trusts that subscribe to a sustainable approach.



Goal 8. **Promote growth and employment** – through its investments, the Fund contributes to economic growth. Among other activities, the Fund conducts dialogues with companies to combat forced labour, child labour, slavery and trafficking.



Goal 10. **Reduce inequality** – in 2016, as part of its diversity programme, the Fund invested in the Women Entrepreneurs Opportunity Facility (WEOF), which is a partnership between the Goldman Sachs 10,000 Women entrepreneurship programme and the IFC (International Finance Corporation), designed to promote lending in emerging economies and increase access to capital for female entrepreneurs.



Goal 13. **Combat climate change** – as part of its commitment to this goal, following the results of climate-impact risk analyses of its portfolios, the Fund has divested in 76 companies.

More about the Fund's climate work on page 22.



ESG factors in quantitative portfolio management

During 2016, the Second AP Fund introduced ESG (Environmental, Social and Governance) factors as an integral part of its quantitative management. A broader range of decision data enables better investment decisions, resulting in better conditions for higher return for Sweden's pensioners. Being among the first to incorporate these factors offers clear benefits.

Text: Carl Bjernstam, Solberg

Accounting for some SEK 140 billion of the Second AP Fund's total portfolio of SEK 324.5 billion, quantitative management represent the largest part. Investment decisions for this portion of the Fund's total assets are based on in-house-developed quantitative models. In the asset class global equities, with some SEK 90 billion under management, the model comprises source data of different factors, covering some 2 500 companies.

The model is then used to process all this data, which is condensed into 10-15 aggregated factors. These factors are then used to extrapolate the possible future levels of return on equities under management. This in turn determines which equities the Fund decides to over/underweight, to outperform index.

"Our job is to try to look into the future and invest to achieve the highest return. In companies that are expected to perform well in future, we wish to adopt a position in which our equity holding exceeds the company's index share. To make these decisions, we need to have an idea as to which companies to seek over or underweighting in, and why we should," explains Claes Ekman, quantitative portfolio manager at AP2.

“In companies that are expected to perform well in future, we wish to adopt a position in which our equity holding exceeds the company's index share.

Integration of ESG

The Second AP Fund regularly reviews the model employed for quantitative management, which means that occasionally certain factors are removed or added. During 2016, a number of ESG factors were added to the model for asset class global equities, the work being done internally by AP2's staff. The Fund initiated this process by analyzing source data from the quantitative management perspective, to predict excess return by identifying equities that offer better future performance than index. This data should be sourced over a considerable period of time, feature input from many companies and be supplied in a structured format.

"The Second AP Fund's model analyzes portfolio companies with reference to ESG factors in two equally important areas. The first concerns the classification of companies according to their status with regard to factors such as carbon emissions. The second refers to their capacity for change, i.e. companies' actual progress on the level of carbon emissions," says Tomas Morsing, head of Quantitative strategies at AP2.

Good for Sweden's pensioners

In AP2's case, the integration of ESG factors as part of the investment decisions can be explained broadly in two ways. For one thing, there is historical evidence that companies with, for instance, a clear environmental profile and strong corporate culture, generate better returns than other companies. For another, there is reason to believe that this trend may continue, encouraging additional players to invest in these companies. These factors favour, in that case, the Second AP Fund, which already considers these aspects in making investment decisions.

"We are one of few players in the industry to have taken this process to the next level, by analysing the source data instead of relying on pre-determined ESG factors. It is vital to get as close to the source data as possible, a recognition that is fully

in line with the Fund's overall approach to quantitative management," notes Tomas Morsing.

The Fund's ESG model includes environmental factors that feature concrete measurements, such as the level of carbon emissions released by companies, or the amount of energy they consume. The model also comprises measurements and indicators relating to social and corporate governance factors that can, simply put, give an idea of whether the company is sound.

"A fundamental portfolio manager responsible for a small number of companies can acquire this information by meeting the companies on an individual basis. For the Fund, which invests in some 2 500 companies, this is not easy. Now that we have succeeded in quantifying an indirect scale of measurement to determine a company's corporate culture, however, we can include this information anyway," explains Claes Ekman.

An interesting observation AP2 has made is that companies that feature a high ratio of women in leading positions also perform better, regardless of size or type. One possible explanation is that these companies are more focused on issues relating to values and corporate culture, reflected in the Fund's quantifiable indicators – such as the ratio of women in leading positions and the abundance of in-house training.

The process continues in 2017

The Second AP Fund gradually started to integrate ESG factors into the six different indices of its quantitative model in the autumn of 2016. This process is now complete, making ESG considerations, in combination with a number of other factors, integral to the investment decision.

The next stage of this process is a project started in 2016, designed to ensure that the Second AP Fund, in its management of global equities, will develop a more strategic working approach concerning these issues, by developing an ESG-weighted index. During 2017, the Fund plans to integrate ESG factors in the management of its portfolio of global corporate bonds, as has now been achieved in its quantitative management of equities.



Claes Ekman



Tomas Morsing

AP2 develops green bond strategy

In 2016, the Fund allocated one percent of its total strategic portfolio to green bonds, whereby this asset class became part of the overall investment strategy. This represented a new strategic approach for the Fund concerning investment in sustainability and a further step towards making sustainability integral to asset management.

During the year, the Fund decided to allocate one percent of its total strategic portfolio to green bonds and to benchmark this allocation against the Barclays/MSCI Green Bond Index. This is a strategically important decision, which serves to further strengthen the Fund's work with sustainability issues. In addition to this, the Fund also manages investments in green and social bonds, which form part of the Fund's current bond portfolio. Currently, the Fund has a total of SEK 4.9 billion invested in green bonds.

“ This is why we are breaking out the Fund's green-bond holdings, so that they can be managed in line with a dedicated investment strategy.

“The ratio of green bonds in the active bond portfolio has risen dramatically in recent years. We now see that the market has grown to such a size and degree of maturity that it may be addressed as a separate investment strategy and asset class. This is why we are breaking out the Fund's green-bond holdings, so that they can be managed in line with a dedicated investment strategy. This is a strategic move that offers the Fund a clear way to combine solid returns while at the same time allocating resources to support the global sustainability challenge,” says Lars Lindblom, portfolio manager for fixed-income securities at the Second AP Fund.

“We're a player that invests in the global bond market. We make no special distinction concerning our expectations of investment in green bonds, although we do prefer a green bond to a standard bond when of similar value. Investors must continue to drive the agenda to combat climate change forward, by making ESG criteria integral to the asset management process and allocating capital to climate improving initiatives and projects,” states Lars Lindblom.

The term 'green bonds' is a collective name for bonds that are issued as a means of funding environment-related investment. The Second AP Fund's fixed-income securities team has extensive experience of managing sustainable investments. When the Fund first invested in green bonds in 2008, it was among the first in the world to invest in this asset class.

Dialogue with gambling companies

In the Fund's analysis of progress with sustainability for its ten largest Swedish shareholdings, the companies identified as facing the greatest challenges were online gambling companies. Gambling companies operate in an industry challenged by many sustainability risks. An addiction to gambling can lead to major social problems and, on several markets, there is a considerable lack of clarity about which laws and regulations apply to online gambling. Aware of this, the Second AP Fund focused special attention in 2016 on exchange-listed gambling companies in Sweden.

The Swedish gambling market

At present, Sweden lacks any legislation that addresses online gaming and betting. Companies are free to operate in Sweden, since they have obtained licences for online gaming and betting from another EU country (Malta). A Swedish government enquiry is scheduled to publish a proposal in spring 2017 as to how the gambling industry in Sweden might be regulated. The directive for this enquiry states that "This regulation shall be based on a licensing system that requires that all who operate on the Swedish gambling market shall only do so with an official permit, and that operators without permits shall be excluded. Furthermore, a key requirement of such regulation shall be to limit the negative consequences of gambling. A high level of consumer protection also assumes regulation that addresses social concerns that, among other things, necessitate appropriate and moderate marketing."

Dialogue with companies

During the year, the Second AP Fund has pursued a dialogue with gambling companies that are exchange-listed in Sweden. Attention has focused on compliance with the law, gambling addiction and marketing. These companies are well aware of their particular sustainability risks and are adopting a variety of approaches to reduce them. The fact that several countries are introducing regulations for online gambling is creating clarity about what applies on different markets.

“During 2017, AP2 will maintain its dialogue with these portfolio companies and monitor developments relating to the regulation of online gambling in Sweden.

To enhance confidence in the sustainability programmes operated by companies, the Fund feels it is crucial that they become more transparent, for example, about their efforts to combat gambling addiction – and that they develop indicators to illuminate what they are doing. The Fund hopes that the anticipated publication of the enquiry in the coming spring will provide clarity about many sustainability issues.

During 2017, the Second AP Fund will maintain its dialogue with these portfolio companies and monitor developments relating to the regulation of online gambling in Sweden.

Human rights high on the agenda

During 2016, the Second AP Fund started a project concerning the implementation of the UN's Guiding Principles on Business and Human Rights. This is an important work for developing the Fund's integration of human rights issues in its business operations. The project has increased the Fund's in-house competence and understanding of these Principles. This work is being continued in 2017 and will focus on identifying the most salient issues confronting the Fund with regard to human rights.

Text: Carl Bjernstam, Solberg

In 2011, the UN Human Rights Council unanimously adopted the UN Guiding Principles on Business and Human Rights. These Principles set a global standard that define how nation states and companies the world over shall prevent the negative effect companies can have on human rights.

The Principles cover all companies and organizations, including the Second AP Fund. The Principles state that a company's activities shall not cause or contribute to a negative impact on human rights, and that it shall act to ensure that this does not occur. Such a negative impact can limit an individual's right to exercise his or her rights.

The Principles also establish that companies shall strive to minimize and hinder any negative impact on human rights that derives from a company's business relations. The Second AP Fund's responsibility can therefore also embrace its holdings, suppliers and other partners.

"Given that the Principles apply both directly and indirectly to the Fund, it is important that we and our suppliers, business contacts and portfolio companies all observe these Principles and exercise respect for human rights," explains Lina Sandström, sustainability analyst at AP2 and project leader.

Identifying in-house risks

In 2016, the Fund started a project for the in-house implementation of the UN Guiding Principles on Business and Human Rights. The project focuses on identifying the Fund's most salient issues in terms of human rights, i.e. issues where the risk of a seriously negative impact is greatest. Members of staff from all departments of the Fund are engaged in the project, which is being conducted in three phases.

The first phase involves charting the conceivable risks of negatively affecting human rights to which the Second AP Fund might cause, contribute to or be connected with. Phase two involves examining the Fund's ability to prevent and manage such risks. The third phase involves determining how serious the consequence for the affected rights holder will be, whether human

“ In 2016, the Fund started a project for the in-house implementation of the UN Guiding Principles on Business and Human rights.

rights have been negatively affected. The likelihood of such a negative impact is also assessed. Finally, based on these assessments, the risks are ranked in order of priority, to determine which should be addressed first: in other words, which are the Fund's most salient human rights issues.

During 2017, the Second AP Fund will continue this process of identifying impacts on human rights by reviewing other potentially negative effects. Once the identification process and assignment of priorities is complete, the results – in compliance with the Principles – will be incorporated into the Fund's business operations. The Fund already has routines for addressing human rights issues in place. The current work enables further development of these routines.

Everyone is involved

As part of this project, the Second AP Fund has also paid considerable attention to training and competence development through a number of workshops, training courses and debates. These included an obligatory orientation session for all members of the Fund's staff, held in December, addressing the subject of the UN Guiding Principles in particular, and human rights in general.

"During the year, the project's working group has developed its insights into the true meaning of human rights and how companies can have an impact. It is important we ensure this knowledge is subsequently disseminated throughout the organization, such as through training sessions and workshops," states Lina Sandström.

Multiple benefits

The project offers the Second AP Fund many benefits. By reducing the risk of infringements and increasing its knowledge of human rights, the Fund is enabled both to preserve and generate value.

According to the Principles, the knowledge thus gained should be disseminated to other parties, such as portfolio companies and suppliers.

Human rights are, by their nature, good for people. Addressing such issues creates value that derives directly from the positive impact on people. For instance, better living conditions and improved health stimulate the economy at large which, in turn, is positive for investors. This is especially important for long-term investors like the Second AP Fund, given that such issues are often linked to the viability of more sustainable development.

"The Fund's work with human rights creates value. It is beneficial both to the economy and to sustainable development. In this sense, our work in this sphere benefits Sweden's pensioners. It is also important that we as an organization set a good example, in the hope that we might influence others to address these same issues," explains Lina Sandström.

UN Guiding Principles on Business and Human Rights

The UN Guiding Principles are a global standard that defines what is expected of states and companies. The Principles do not herald the establishment of new human rights obligations, but are rather a clarification of how companies should act. The Principles are grounded on three pillars:

1. The state duty to protect human rights.
2. The corporate responsibility to respect human rights. This means that companies' business activities shall not cause, contribute or be linked to a negative impact on human rights. Companies shall act to prevent such harm from arising.
3. Access to remedy.

Sustainability Day with the Fund's non-listed real-estate companies

In December 2016, the Second AP Fund arranged a joint meeting in London with the sustainability managers from its joint-owned real-estate companies: Cityhold Office Partnership, US Office Holdings and Vasakronan. The aim of the meeting was to create a forum where insights and expertise could be exchanged and sustainability issues discussed. This first meeting focused on metrics and goals.

Forum for discussing sustainability

The Second AP Fund invited its joint-owned real-estate companies, Cityhold Office Partnership, US Office Holdings and Vasakronan, to a meeting to share their expertise and discuss how the Fund should monitor the sustainability programmes of real-estate companies.

The day kicked off with a presentation by Helena Olin, head of real-estate investment at AP2, who provided a broad view of the Fund's real-estate portfolio, which focuses on centrally located, high-quality traditional real estate in markets featuring good liquidity. Christina Olivecrona, the Fund's sustainability analyst, then presented the Second AP Fund's work on sustainability in general, as well as the potential the real-estate sector has, in the Fund's opinion, for impacting the transition to a low-carbon society. The sustainability managers from the real-estate companies then talked about how they work with sustainability.

The presentations were followed by a discussion about comparable parameters and relevant goals for topics such as carbon footprints, energy consumption and social issues. There was an atmosphere of keen commitment, and the meeting generated a host of ideas. It is important to discuss broad issues such as overall objectives, but even details concerning the measuring techni-

ques must be addressed, to enable a comparison and evaluation of sustainability efforts that is as effective as possible.

Comparable data

To better enable the monitoring and assessment of progress on sustainability by its real-estate investments, the Fund has become a member of the Global Real Estate Sustainability Benchmark (GRESB) organization. Based on an annual questionnaire, the organization assesses various aspects of sustainability within real-estate companies and property funds. By evaluating the answers to this questionnaire, the Fund can monitor progress on sustainability in its listed Swedish real-estate companies as well as in non-listed companies and property funds.

In light of the fact that the Second AP Fund's non-listed real-estate companies operate on different geographical markets, subject to varying conditions and regulations, the GRESB questionnaire makes it easier for the Fund to compare companies' sustainability data. To further add to this data, the Fund also analyses the companies' quarterly and annual reports. The London meeting gave everyone a more complete picture of the way the various companies measure sustainability.



"I found it fascinating to hear about the application of sustainability in the different portfolios and the successes that have been achieved," notes Abigail Dean, sustainability manager at TH Real Estate, which manages Cityhold Office Partnership. "It was also useful to discuss the different metrics as a group and to hear from AP2 about the data that they want to collect and why," Abigail adds.

The meeting confirmed just how difficult it is to acquire comparable data. It turned out that an apparently simple measurable value such as 'area' could be calculated in many different ways.

"What was perhaps most surprising was that almost no key ratios could be compared directly, because of the differences in measuring and monitoring techniques," reflected Anna Denell, sustainability manager at Vasakronan, following the meeting.

Market differences

An interesting topic of conversation was how the different international real-estate markets vary. Jonathan Flaherty, sustainability manager at Tishman Speyer, which manages US Office Holdings, says:

"Although a building in NYC and a building in London often look the same from the outside, they are often extremely different on the inside. Those differences range from: the types of mechanical systems and utility services, to the way leases are written. All of these issues have major impacts on what kind of sustainability efforts can be provided and how they can be best incorporated."

A further difference in the way real-estate is managed from one country to another concerns the division of responsibilities between landlord and tenant. In some countries, the tenant is responsible

both for the maintenance and operational management of the property, which means that the landlord lacks any direct influence on determining the building's energy consumption. In Sweden, Vasakronan has been something of a pioneer, with the introduction of 'green leases', whereby landlord and tenant develop joint action plans for the reduction of environmental impact.

All agreed on the value of this type of collaboration, and that the sustainability forum should be an annual event.

Vasakronan

Vasakronan, which is owned jointly by the First, Second, Third and Fourth AP Funds, is Sweden's largest real-estate company with a portfolio of attractively located properties concentrated to the Stockholm, Gothenburg, Öresund and Uppsala regions. Vasakronan owns and manages some 180 properties with a total market worth in excess of SEK 115 billion.

Cityhold Office Partnership

Cityhold Office Partnership was formed in 2015, as a joint venture between the First and Second AP Funds and US pension fund TIAA, with a view to creating a leading European platform for investment in Europe. The office properties previously owned by TIAA General Account in Europe, and the First and Second AP Funds' real-estate portfolios, managed by Cityhold Property AB, are now combined under the joint-owned company, Cityhold Office Partnership. The combined real-estate portfolio, which is valued at € 2.2 billion, comprises 15 office properties amounting to 250 000 square metres of office space at prime central locations in Great Britain, France and Germany. During the year, one property has been purchased and one sold in London. The company is managed by TH Real Estate, which also provides investment and asset-management services.

US Office Holdings

Together with South Korean state pension fund NPS and US commercial property developer Tishman Speyer, the Second AP Fund is joint owner of the American real-estate companies US Office Holdings and US Core Office. The companies own the properties both directly and jointly. The combined portfolio comprises 22 centrally located office properties, totalling some 1.4 million square metres. The combined market worth of the properties held by these two companies is about USD 4 billion. Almost 70 percent of the portfolio's total market worth derives from properties on the east and west coast of the USA, in the cities of New York, Boston, San Francisco, Seattle and Los Angeles. 25 percent of the portfolio's market worth derives from properties located in Chicago.

Change focused on two-degree limit

The Second AP Fund is determined to develop the portfolio in line with the two-degree climate goal. The real-estate sector has considerable potential for contributing to change, due to the construction industry's significant climate impact, which is why the Fund believes collaboration between real-estate companies can promote positive change. The real-estate sector as a whole accounts for almost 30 percent of global carbon emissions and almost 40 percent of energy consumption. Traditional real estate accounts for eight percent of global energy consumption. To attain the two-degree goal, the IEA (International Energy Agency) has set up targets with policies and measures for the construction sector. The vision for EU countries is zero carbon emissions from new buildings and improved energy consumption in existing buildings, plus the introduction of standards for obligatory energy savings until 2020.

Active work on sustainability in China

In September 2016, the Second AP Fund visited its external portfolio managers in China to learn more, follow up on their activities and expand collaboration. The visit featured visits to companies, meetings and a number of seminars. The Fund has been investing in the Chinese domestic market since 2013 and has an active collaboration with its portfolio managers on sustainability issues.

The Second AP Fund has a strategic allocation of one percent of its total portfolio in Chinese equities listed on the Shanghai and Shenzhen stock exchanges. Foreign institutional investors are free to invest in the Chinese domestic market, providing the appropriate permits have been obtained. Permits are awarded to investors that have been issued with a QFII (Qualified Foreign Institutional Investor) licence and assigned an investment quota. The Fund has possessed such a permit since 2013, and employs three external Chinese portfolio managers to handle its investments. The decision to invest in domestic Chinese equities was prompted by a number of strategic investment considerations. Thanks to China's rapid growth in recent decades, its economic and financial footprint is considerable. This impacts on global markets and, consequently, also affects the Fund's portfolio. Direct exposure to the Chinese market offers valuable diversification, while also ensuring that the Fund's portfolio better reflects China's position in the global economy.

Challenges to sustainability

Investing in China can involve major challenges when it comes to sustainability. The Fund deems corporate and market transparency to be less satisfactory than in more developed markets. One of the reasons the Chinese government is issuing permits to institutional investors is believed to be to attract shareholders who, by reason of their behaviour and priorities, will help create a more lasting and value-based stock market. This in turn is important to the effective allocation of capital and, over time, to the long-term development of the Chinese economy as a whole.

Dialogue with portfolio managers and portfolio companies

The Second AP Fund works actively with its external portfolio managers in China, to ensure that sustainability concerns are made integral to investment decisions. The Fund visits these portfolio managers every year, to develop collaboration on sustainability issues. Dialogue – as a tool to drive change – works well. It promotes increased understanding of the topic and also serves to

build trust between parties. During these visits, the Second AP Fund also visits portfolio companies. The Fund is convinced that this opportunity to discuss sustainability issues directly with portfolio companies is highly valuable.

These visits build awareness and contribute to a better understanding into which sustainability issues that are problematic in the country. This is important to be able to ask the right questions to the portfolio managers that the Fund meets.

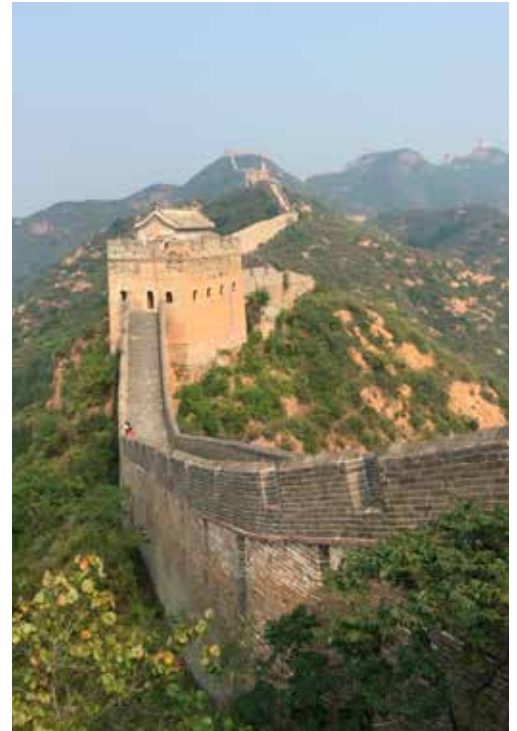
“The Second AP Fund works actively with its external portfolio managers in China, to ensure that sustainability concerns are made integral to investment decisions.”

Integration of sustainability

Integrating sustainability into the investment process is a relatively novel experience for asset managers in China. To help evolve processes for the effective management of sustainability issues, the Fund is collaborating closely with its portfolio managers. During this annual visit, discussions addressed ways in which fund managers are making sustainability factors integral to their fundamental analyses. Particular attention was paid to the discussion of social factors, to which the Fund was able to contribute from experience. The process of integrating these social factors will continue in 2017. To enable the Fund to monitor its portfolio managers' progress, it has also provided reporting tools and assistance in formalizing their reporting process.



Lina Sandström, sustainability analyst and Patrik Jonsson (not in picture), responsible for listed assets at the Second AP Fund, visit Chongqing Logistics City, China.



The Great Wall of China



The Second AP Fund's CIO Hans Fahlin (to the left) as panel moderator at APS's Annual Client Event in Chongqing, China.



Bulletin board

AP2's CEO elected to PRI board

The Second AP Fund is committed to consistent implementation of the UN's Principles for Responsible Investment (PRI) in its asset management operations and is actively engaged in the initiative. In autumn 2016, the Fund's CEO, Eva Halvarsson,

was elected to a seat on the PRI board. Eva Halvarsson has a keen interest in sustainability issues and many years' experience of working with these issues, as a stakeholder, as a member of company boards and as CEO.

AP2 represented on ILPA board

Anders Strömblad, who heads Alternative investment at AP2, sits on the ILPA (Institutional Limited Partners Association) board, which is a global organization that represents some 300 institutional investors in the private equity industry. The organization provides training, drives research projects and offers investors opportunities for networking and global collaboration.

Anders Strömblad has also been a member of the PRI's Private Equity Advisory Committee since 2015. The Fund conducts ongoing evaluations of the private equity funds in its portfolio and strives to ensure that these implement PRI's Principles and are transparent. The Second AP Fund has participated in drafting the guidelines that apply to private equity funds.

Gothenburg Sustainability Award to Seoul City Mayor

The 2016 Gothenburg Award for Sustainable Development was presented to Park Won-Soon, Mayor of Seoul, South Korea, for having played a globally leading role in creating a 'sharing city'. Park Won Soon is a prominent figure in the creation of more favourable conditions for the distribution of resources and information in the field of participatory economics.

The population in Seoul is about five times larger than that of New York City. The average age is rising steadily, which is reflected in its growing population. Instead of simply building new housing, the city wishes to achieve a change in mindset, to enable existing resources to be utilized more efficiently. Seoul has striven to increase awareness among the general

public and encourages companies to share information and assets. Various forms of efficient sharing have been developed, by changing regulations, mobilizing the city's underutilized resources and by making data generally available.

In concrete terms, this has resulted in the sharing of parking spaces for increased use, the renting out of empty apartments, the lending of clothes and an increase in car-sharing.

The Gothenburg Award for Sustainable Development is an international award that is presented to people or organizations that have made meaningful contributions towards a more sustainable world. The Award is worth one million Swedish kronor and was first presented in 2000.

The Second AP Fund is one of eleven sponsors of the Award.

GRI reporting

The Second AP Fund's 2016 Sustainability Report has been inspired by the Global Reporting Initiative's (GRI) G4 'core level' guidelines. The report covers the Fund's in-house operations. The Fund intends to develop this reporting process over the coming years. The report is not subjected to special examination by the Fund's auditors.

GRI-index, The Second AP Fund 2016

General standard disclosures

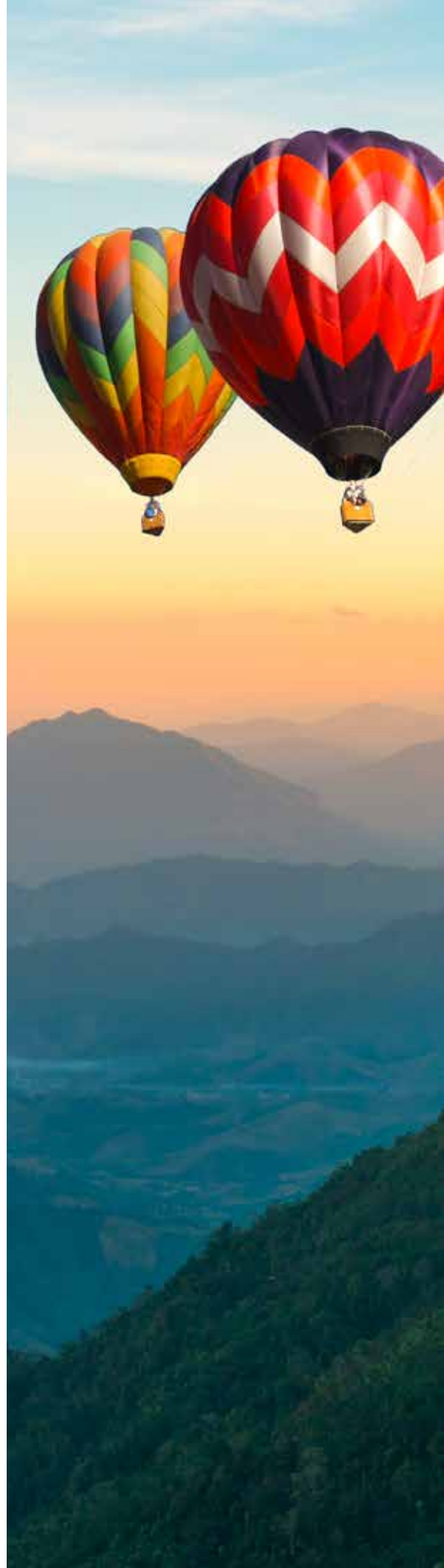
| Indicator | Description | Page | Comments |
|-------------------------------|---|---------------|--|
| Strategy and analysis | | | |
| G4-1 | Statement by CEO | 4–6 | |
| Organizational profile | | | |
| G4-3 | Organization's name | Outside cover | |
| G4-4 | The most important brands, products and/or services | 8–11 | AP2 markets no products or services. The Fund manages pension assets in the Swedish national pension system. |
| G4-5 | Localization of organization's head office | Outside cover | |
| G4-6 | Number of countries in which the organization is active | www.ap2.se | AP2's only office in Gothenburg, but invests globally. |
| G4-7 | Ownership structure and business form | 74–77 | |
| G4-8 | Markets in which the organization is active | www.ap2.se | |
| G4-9 | Size of reporting organization | 1–2, 27, 58 | |
| G4-10 | Number of employees | 23, 58 | |
| G4-11 | Percentage of staff covered by collective bargaining agreements | 59 | |
| G4-12 | Description of organization's supply chain | 8–11 | To be developed in future. |
| G4-13 | Notable changes during report period | 12–14 | |

Page numbers refer to the Second AP Fund's Annual Report, 2016.

| Indicator | Description | Page | Comments |
|---|---|------------|--|
| G4-14 | Description of and how the organization complies with the Duty of Care principle | 42–47 | |
| G4-15 | Externally developed economic, environmental and social declarations, principles or other initiatives that the organization subscribes to or supports | 28–29 | Sustainability and Corporate Governance Report, www.ap2.se, www.ethicsradet.se |
| G4-16 | Membership of organizations and/or national/international lobby organizations | www.ap2.se | Sustainability and Corporate Governance Report, www.ap2.se, www.ethicsradet.se |
| Material aspects identified and where influence can be exerted | | | |
| G4-17 | Units that form part of the organization's financial reporting | 68–69 | Sustainability and Corporate Governance Report |
| G4-18 | Description of process for defining report content and boundaries | | Sustainability and Corporate Governance Report |
| G4-19 | Account of all material aspects identified | | Sustainability and Corporate Governance Report |
| G4-20 | Description of boundary for each material aspect within the organization | | Sustainability and Corporate Governance Report |
| G4-21 | Description of boundary for each material aspect outside the organization | | Sustainability and Corporate Governance Report |
| G4-22 | Explanation to impact of changes in information supplied in earlier reports and reasons for such changes | 68–69 | Pre-economic data, otherwise irrelevant. |
| G4-23 | Notable changes made since previous report period | 68–69 | Pre-economic data, otherwise irrelevant. |

| Indicator | Description | Page | Comments |
|-------------------------------|---|-------|--|
| Stakeholder commitment | | | |
| G4-24 | Stakeholder groups with which the organization has contact | | Sustainability and Corporate Governance Report |
| G4-25 | Principle for identification and selection of stakeholders | | Sustainability and Corporate Governance Report |
| G4-26 | Procedures for communication with stakeholders | | Sustainability and Corporate Governance Report |
| G4-27 | Key areas and issues raised through communication with stakeholders | | Sustainability and Corporate Governance Report |
| Reporting profile | | | |
| G4-28 | Reporting period | 68 | 1/1–31/12 2016 |
| G4-29 | Date for publication of the latest report | | AP2 annual report, published 10/2 2017. |
| G4-30 | Reporting cycle | | Financial year is calendar year. |
| G4-31 | Contact for reporting issues and content | | www.ap2.se |
| G4-32 | Statement of content in compliance with GRI's Core reporting level and report on external corroboration | | Sustainability and Corporate Governance Report www.ap2.se |
| G4-33 | Statement of organization's policy and procedures for external corroboration of report | | Has not been audited by third party. |
| Governance | | | |
| G4-34 | Account of organization's corporate governance | 74–77 | Fund's governance report, governance policy, www.ap2.se |
| Ethics and integrity | | | |
| G4-56 | Organization's values, principles, standards and norms | 25–27 | |

Specific standard data is reported on the Fund's website at www.ap2.se



“ For the Second AP Fund, sustainability issues are closely linked with the requirement to generate high return for Sweden’s pensioners.

Eva Halvarsson, CEO of the Second AP Fund.



Andra AP-fonden
Second Swedish National Pension Fund - AP2