



Preface



The world is experiencing unprecedented times. That also applies to our pension funds and their participants. The corona virus makes things we have previously taken for granted now seem unusual. In addition, our pension system is on the verge of getting thoroughly reformed. During this surreal period in time, APG wants to ensure that our pension funds and their participants can count on us to provide them with the best possible pension, and to contribute to a livable, sustainable world for current and future generations.

To be able to offer an attractive pension – now and later – we invest the participants' pension premiums in a responsible way. This is how we fulfil our social responsibility. Our own research and countless scientific studies strengthen us in our conviction that sustainability does not come at the expense of the return on our investments. In fact, by including information about human rights, the environment and good corporate management in our analyses, we can make better investment decisions, particularly because we invest for the long term.

We want to report about this in an honest, open and realistic way in this report. APG manages € 538 billion of pension capital. As a big, worldwide pension investor, we are at the heart of society. A society that is not always clean and fair. As investors, we figuratively – and sometimes literally – have our feet in the mud. So, what is the best way for us to bring about change? Not by excluding all companies that have social or environmental issues, but rather, by entering into a dialogue with them. We want to use our influence as an investor to encourage companies to work more sustainably: to be protective of the environment, respect the rights of employees and local communities and treat the world we live in with care.

In this report, you can read how we do this. For example, by evaluating any company that we can invest in through shares or bonds, using criteria related to human rights, labor rights, the environment and business ethics. By voting at thousands of shareholder meetings and having conversations with hundreds of companies. By investing in companies and projects that contribute to the Sustainable Development Goals.

We are convinced that we can accomplish the most through cooperation. Together with other large investors, we are putting pressure on the companies that emit the most carbon (Climate Action 100+). In the Netherlands, we collaborate in the context of the covenant for International Socially Responsible Investment (IMVB). And 2020 marks the official start of the SDI Asset Owner Platform, which, in collaboration with PGGM, AustralianSuper and British Colombia Investment Management Corporation, will make our knowledge and artificial intelligence-based technology available to other financial institutions that want to contribute to the Sustainable Development Goals.

Our responsible investment policy, and those of the pension funds we work for, are getting national and international recognition. But that is no reason to become complacent. ABP introduced a new policy for sustainable and responsible investment in 2020 and other funds will be doing this next year. To support them in the execution of their policy in the best way possible, we are always looking for new insights and technologies. We always do this with one thing in mind: we invest pension funds for people. For civil servants, teachers, builders, housing corporation employees, our own employees and many others. We remain fully committed to their future, no matter what our future may hold.

July 2020

Gerard van Olphen, chairman of the APG executive board Ronald Wuijster, member of the APG executive board, responsible for Asset Management

2019 in numbers

Dialogue with companies about sustainability and good governance

Number of companies APG has engaged



366 716 2019

Number of discussions about



Sustainability*

633 2019 2018

Good corporate governance

2019

178 2018



Human rights

352 96 2018 2019



Safe working conditions

2018

2019

74



Eradication of child labor

21 2018 2019

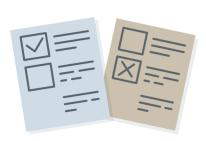


Combating corruption

34 2018 2019

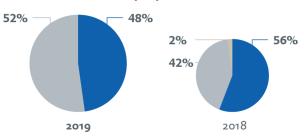
Voting at shareholder meetings

Shareholder meetings where we voted

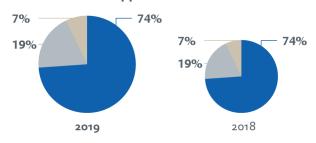


5,000

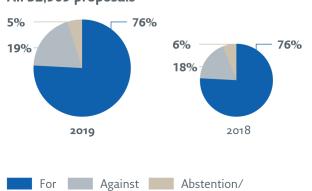
1,770 remuneration proposals



20,692 director appointments



All 52,909 proposals



did not vote

^{*} Includes the environment, climate change and contributions to the Sustainable Development Goals.

Sustainable Development Investments

Sustainable Development Investments* (in billions of euros)

38.5 2018 2017 2016 2019 2015



APG invests in GTX Medical, a Dutch company that has developed a unique and promising therapy to help paraplegia patients to move their legs again.

* Including sustainable real estate in bpfBOUW's portfolio, managed by Bouwinvest. In 2019, this amounted to € 8.9 billion.

Investments in renewable energy (in billions of euros)

7.4 26 2019 2018 2016

Our infrastructure investments annually generate 5.3 TWh of sustainable energy. This means that we provide green energy to over 1.5 million households with our investments.

Investments in green bonds

(in billions of euros)

2019

2018

2017

2016



In 2019, we invested in the first green Dutch government bond. Financing the generation of sustainable energy, making homes more energy-efficient and building the bicycle storage at the Utrecht Central train station are some of the ways the government is using the returns from this.

Decrease of carbon footprint in equity portfolio compared to 2014

-16% 2019 2018 2017 2016



Food company Nestlé's target is to no longer emit carbon on a net basis as of 2050, for example by developing low-carbon products and packaging. APG is leading the engagement with Nestlé on behalf of Climate Action 100+.

Inclusion and exclusion



Companies classified as leader or laggard

10,000+ 7,700 2019

2018

60U

2016 2017

Companies on the exclusion list

159

2019

153 2018

2016 2017



Countries (government bonds) on the exclusion list

2019

2018

10

2017

10 2016

Rating by PRI

2019

2018

Total assets invested (in billions of euros)

2019

2018

2016

Who we are



Every single day, APG Group NV (hereinafter APG) works with something that millions of Dutch people will someday be dealing with or are already dealing with: pension. For APG, pension is about people, about living and about living together. We want to make a difference, so that we, our parents and our children will have a good income, both now and in the future.

APG is the biggest pension administration company in the Netherlands and even in Europe. We manage assets for four pension funds: ABP (government and education), bpfBOUW, SPW (housing corporations) and PPF APG (Personnel Pension Fund).

Our mission is: "Building your sustainable future together". Our company focuses on maximizing pension value for our clients.

APG has about 3,000 employees. We have two offices in Amsterdam and one in Heerlen. Outside of the Netherlands, we have offices in Hong Kong and New York. We also have satellite offices in Brussels, Shanghai and Beijing.

Table of Contents

1 Our approach	9
1.1 Responsible investment and our mission	10
1.2 Concrete goals	10
1.3 Responsible investment choices	10
1.4 Compliance with national and international regulation	11
1.5 Progress in the implementation	11
1.6 Embedding in the organization	11
1.7 Our pension funds top sustainability ranking	11
2 Active investment in leaders and laggards	13
2.1 What is inclusion?	14
2.2 The investment universe classified	14
2.3 Leader or laggard? Our criteria	14
2.4 Differences between regions and sectors	14
2.5 Inclusion remains a work in progress	15
3 Exclusion	16
3.1 Product exclusion	17
3.2 Companies that do not honor worldwide agreements	17
3.3 Exclusion of government bonds	17
Albertaile to the Contained by Develope and Conda	18
4 Investing in the Sustainable Development Goals	
4.1 Contributions to the Sustainable Development Goals	19
4.2 Cooperation	19
4.3 Sustainable cities and communities	21
4.4 APG is one of the biggest investors in green bonds	21
5 Human rights and working conditions	23
E 1 Uuman mighte han chmanle	2.4
5.1 Human rights benchmark	24
5.2 What does APG want to achieve?	24
5.2 What does APG want to achieve?5.3 Theme: fair raw materials	24 25
5.2 What does APG want to achieve?5.3 Theme: fair raw materials5.4 Theme: digital rights in the ICT sector	24 25 25
5.2 What does APG want to achieve?5.3 Theme: fair raw materials5.4 Theme: digital rights in the ICT sector5.5 Theme: malpractices in the clothing industry	24 25 25 25 25
5.2 What does APG want to achieve?5.3 Theme: fair raw materials5.4 Theme: digital rights in the ICT sector5.5 Theme: malpractices in the clothing industry5.6 Theme: safety in the shipbuilding industry	24 25 25 25 26
 5.2 What does APG want to achieve? 5.3 Theme: fair raw materials 5.4 Theme: digital rights in the ICT sector 5.5 Theme: malpractices in the clothing industry 5.6 Theme: safety in the shipbuilding industry 5.7 Theme: safety in infrastructure 	24 25 25 25 26 26
5.2 What does APG want to achieve? 5.3 Theme: fair raw materials 5.4 Theme: digital rights in the ICT sector 5.5 Theme: malpractices in the clothing industry 5.6 Theme: safety in the shipbuilding industry 5.7 Theme: safety in infrastructure 5.8 Theme: cobalt working conditions	24 25 25 25 26 26 26
 5.2 What does APG want to achieve? 5.3 Theme: fair raw materials 5.4 Theme: digital rights in the ICT sector 5.5 Theme: malpractices in the clothing industry 5.6 Theme: safety in the shipbuilding industry 5.7 Theme: safety in infrastructure 	24 25 25 25 26 26
5.2 What does APG want to achieve? 5.3 Theme: fair raw materials 5.4 Theme: digital rights in the ICT sector 5.5 Theme: malpractices in the clothing industry 5.6 Theme: safety in the shipbuilding industry 5.7 Theme: safety in infrastructure 5.8 Theme: cobalt working conditions 5.9 Theme: child labor in the cocoa sector 5.10 First case of IMVB covenant	24 25 25 25 26 26 27 27
 5.2 What does APG want to achieve? 5.3 Theme: fair raw materials 5.4 Theme: digital rights in the ICT sector 5.5 Theme: malpractices in the clothing industry 5.6 Theme: safety in the shipbuilding industry 5.7 Theme: safety in infrastructure 5.8 Theme: cobalt working conditions 5.9 Theme: child labor in the cocoa sector 5.10 First case of IMVB covenant 6 Climate change and the environment 	24 25 25 25 26 26 27 27
5.2 What does APG want to achieve? 5.3 Theme: fair raw materials 5.4 Theme: digital rights in the ICT sector 5.5 Theme: malpractices in the clothing industry 5.6 Theme: safety in the shipbuilding industry 5.7 Theme: safety in infrastructure 5.8 Theme: cobalt working conditions 5.9 Theme: child labor in the cocoa sector 5.10 First case of IMVB covenant 6 Climate change and the environment 6.1 Targeting climate risks	24 25 25 25 26 26 27 27 27
5.2 What does APG want to achieve? 5.3 Theme: fair raw materials 5.4 Theme: digital rights in the ICT sector 5.5 Theme: malpractices in the clothing industry 5.6 Theme: safety in the shipbuilding industry 5.7 Theme: safety in infrastructure 5.8 Theme: cobalt working conditions 5.9 Theme: child labor in the cocoa sector 5.10 First case of IMVB covenant 6 Climate change and the environment 6.1 Targeting climate risks 6.2 Climate Action 100+	24 25 25 25 26 26 27 27 27 28 29
5.2 What does APG want to achieve? 5.3 Theme: fair raw materials 5.4 Theme: digital rights in the ICT sector 5.5 Theme: malpractices in the clothing industry 5.6 Theme: safety in the shipbuilding industry 5.7 Theme: safety in infrastructure 5.8 Theme: cobalt working conditions 5.9 Theme: child labor in the cocoa sector 5.10 First case of IMVB covenant 6 Climate change and the environment 6.1 Targeting climate risks 6.2 Climate Action 100+ 6.3 Energy mix	24 25 25 25 26 26 27 27 27 28 29 29
5.2 What does APG want to achieve? 5.3 Theme: fair raw materials 5.4 Theme: digital rights in the ICT sector 5.5 Theme: malpractices in the clothing industry 5.6 Theme: safety in the shipbuilding industry 5.7 Theme: safety in infrastructure 5.8 Theme: cobalt working conditions 5.9 Theme: child labor in the cocoa sector 5.10 First case of IMVB covenant 6 Climate change and the environment 6.1 Targeting climate risks 6.2 Climate Action 100+ 6.3 Energy mix 6.4 Investments in renewable energy	24 25 25 25 26 26 26 27 27 27 28 29 29 29
5.2 What does APG want to achieve? 5.3 Theme: fair raw materials 5.4 Theme: digital rights in the ICT sector 5.5 Theme: malpractices in the clothing industry 5.6 Theme: safety in the shipbuilding industry 5.7 Theme: safety in infrastructure 5.8 Theme: cobalt working conditions 5.9 Theme: child labor in the cocoa sector 5.10 First case of IMVB covenant 6 Climate change and the environment 6.1 Targeting climate risks 6.2 Climate Action 100+ 6.3 Energy mix 6.4 Investments in renewable energy 6.5 Carbon footprint equities	24 25 25 25 26 26 26 27 27 27 28 29 29 29 30 30
5.2 What does APG want to achieve? 5.3 Theme: fair raw materials 5.4 Theme: digital rights in the ICT sector 5.5 Theme: malpractices in the clothing industry 5.6 Theme: safety in the shipbuilding industry 5.7 Theme: safety in infrastructure 5.8 Theme: cobalt working conditions 5.9 Theme: child labor in the cocoa sector 5.10 First case of IMVB covenant 6 Climate change and the environment 6.1 Targeting climate risks 6.2 Climate Action 100+ 6.3 Energy mix 6.4 Investments in renewable energy 6.5 Carbon footprint equities 6.6 Climate commitment of the financial sector	24 25 25 25 26 26 27 27 27 28 29 29 29 30 30 31
5.2 What does APG want to achieve? 5.3 Theme: fair raw materials 5.4 Theme: digital rights in the ICT sector 5.5 Theme: malpractices in the clothing industry 5.6 Theme: safety in the shipbuilding industry 5.7 Theme: safety in infrastructure 5.8 Theme: cobalt working conditions 5.9 Theme: child labor in the cocoa sector 5.10 First case of IMVB covenant 6 Climate change and the environment 6.1 Targeting climate risks 6.2 Climate Action 100+ 6.3 Energy mix 6.4 Investments in renewable energy 6.5 Carbon footprint equities	24 25 25 25 26 26 26 27 27 27 28 29 29 29 30 30
5.2 What does APG want to achieve? 5.3 Theme: fair raw materials 5.4 Theme: digital rights in the ICT sector 5.5 Theme: malpractices in the clothing industry 5.6 Theme: safety in the shipbuilding industry 5.7 Theme: safety in infrastructure 5.8 Theme: cobalt working conditions 5.9 Theme: child labor in the cocoa sector 5.10 First case of IMVB covenant 6 Climate change and the environment 6.1 Targeting climate risks 6.2 Climate Action 100+ 6.3 Energy mix 6.4 Investments in renewable energy 6.5 Carbon footprint equities 6.6 Climate commitment of the financial sector 6.7 Making homes sustainable 6.8 Responsible land use	24 25 25 25 26 26 26 27 27 27 28 29 29 29 30 30 31 31
5.2 What does APG want to achieve? 5.3 Theme: fair raw materials 5.4 Theme: digital rights in the ICT sector 5.5 Theme: malpractices in the clothing industry 5.6 Theme: safety in the shipbuilding industry 5.7 Theme: safety in infrastructure 5.8 Theme: cobalt working conditions 5.9 Theme: child labor in the cocoa sector 5.10 First case of IMVB covenant 6 Climate change and the environment 6.1 Targeting climate risks 6.2 Climate Action 100+ 6.3 Energy mix 6.4 Investments in renewable energy 6.5 Carbon footprint equities 6.6 Climate commitment of the financial sector 6.7 Making homes sustainable 6.8 Responsible land use 7 Good corporate governance	24 25 25 25 26 26 26 27 27 27 28 29 29 29 30 30 31 31 31
5.2 What does APG want to achieve? 5.3 Theme: fair raw materials 5.4 Theme: digital rights in the ICT sector 5.5 Theme: malpractices in the clothing industry 5.6 Theme: safety in the shipbuilding industry 5.7 Theme: safety in infrastructure 5.8 Theme: cobalt working conditions 5.9 Theme: child labor in the cocoa sector 5.10 First case of IMVB covenant 6 Climate change and the environment 6.1 Targeting climate risks 6.2 Climate Action 100+ 6.3 Energy mix 6.4 Investments in renewable energy 6.5 Carbon footprint equities 6.6 Climate commitment of the financial sector 6.7 Making homes sustainable 6.8 Responsible land use 7 Good corporate governance 7.1 An active voting policy	24 25 25 25 26 26 26 27 27 27 28 29 29 29 30 30 31 31 31
5.2 What does APG want to achieve? 5.3 Theme: fair raw materials 5.4 Theme: digital rights in the ICT sector 5.5 Theme: malpractices in the clothing industry 5.6 Theme: safety in the shipbuilding industry 5.7 Theme: safety in infrastructure 5.8 Theme: cobalt working conditions 5.9 Theme: child labor in the cocoa sector 5.10 First case of IMVB covenant 6 Climate change and the environment 6.1 Targeting climate risks 6.2 Climate Action 100+ 6.3 Energy mix 6.4 Investments in renewable energy 6.5 Carbon footprint equities 6.6 Climate commitment of the financial sector 6.7 Making homes sustainable 6.8 Responsible land use 7 Good corporate governance	24 25 25 25 26 26 26 27 27 27 28 29 29 29 30 30 31 31 31

7.5 Diverse executive boards can make better decisions	36
7.6 Reliability of greenhouse gas emission data	36
7.7 Prevention of money laundering at banks	36
8 Looking ahead to 2020 and beyond	38
8.1 New ABP policy	39
8.2 Policy development at bpfBOUW and SPW	39
8.3 Implementation of IMVB covenant	39
8.4 SDI Asset Owner Platform	39
8.5 Insight into impact on risk and return	39
Appendices	40
Appendix 1: Addressing climate risks and opportunities	41
Appendix 2: Abbreviations	44

Chapter 1

Our approach



APG invests the future income of millions of people in the Netherlands, such as civil servants, teachers, builders, employees of housing corporations and our own employees. We want to make a difference and contribute to a sustainable future for the current and future generations. That is why, for every investment decision, we take into account human rights, the environment and good corporate governance.

1.1 Responsible investment and our mission

Our objective to contribute to an enjoyable, livable world can be found in our mission statement: 'Building your sustainable future together'. Based on collectivity and solidarity, we build a sustainable future together for pension funds, participants, employers, our own employees and society as a whole.

APG aims for a return that fits in with a company that is socially involved and financially stable, in the interest of the pension fund clients and their participants. Our position regarding banks, pension insurers, asset managers and newcomers to pension land is clear: we are always on the side of the participants, who entrust their pension euros to us via their pension fund.

1.2 Concrete goals

APG has three goals with respect to sustainable and responsible investment:

- Take our corporate social responsibility.
- Contribute to a good return for the participants of our pension funds, taking risk into account.
- Promote transparency and proper functioning of the financial markets.

Our pension fund clients have concrete, measurable objectives for 2020 with respect to sustainable and responsible investments that contribute to a livable world for current and future generations.^[1]

	ABP	bpfBOUW	SPW
Carbon footprint of equities	-25%	-25%	-25%
Investments in sustainable development	€ 58 billion	€ 12 billion	
Investments in renewable energy	€ 5 billion		
Investments in education and communication technology	€1 billion		

1.3 Responsible investment choices

In 2015, we started to fully integrate sustainable and responsible investing into our investment decisions. For each investment, we look at not only the expected return, risk and costs, but also at how sustainable and responsible the investment is. We call this the inclusion policy. In 2020, we want to invest only in companies that pay sufficient attention to human rights, the environment and good corporate governance (also called ESG: Environment, Social, Governance). Or in companies that we expect to be able to influence to make improvements in these areas (Chapter 2).



New mandates and proposals for new investments (above a certain size) in unlisted companies and projects (such as real estate, infrastructure and private equity) are evaluated not only by portfolio managers, but also by specialists in sustainability and good governance. They have advisory powers and are involved in setting up the terms and conditions for the new investment.

^[1] For ABP, the policy cycle ended on December 31, 2019. At the beginning of 2020, ABP announced new objectives for the period 2020-2025. For the other pension fund clients, the policy cycle ends at the end of 2020.

We are convinced that companies that pay enough attention to human rights, the environment and good governance perform better in the long run, not only with respect to sustainability, but also with respect to financial returns. Because long term fits in well with our position as a pension investor, we are in an excellent position to invest in a sustainable and responsible way.

1.4 Compliance with national and international regulation

The way we invest responsibly complies with national and international legislation and regulation. The OECD guidelines for multinational companies are the basis of the inclusion policy (Chapter 2). We also expect the companies we invest in to follow the principles of the UN Global Compact in terms of human and labor rights, the environment and anti-corruption (Chapter 3). In addition, APG substantiates this through the pension funds' participation in the Dutch covenant for International Socially Responsible Investment (Chapter 5).

1.5 Progress in the implementation

In 2019, we completed the evaluation of over 10,000 companies that APG can invest in through shares or bonds. But new companies were also added to the investment universe, which received a provisional (pro forma) qualification. Based on this assessment, we decide what companies to invest in, with which companies we want to engage and which companies will not be added to the portfolio or will be removed from it (Chapter 2).

There has also been progress in:

- our investments in companies and projects that contribute to the Sustainable Development Goals (SDIs) and the preparations for an SDI Asset Owner Platform, in collaboration with others (Chapter 4);
- our thematic improvement trajectories (engagements) related to child labor, safe working conditions and other themes (Chapter 5);
- the decrease of the carbon footprint of our equity investments and the expansion of our investments in renewable energy (Chapter 6):
- the promotion of good corporate governance at the companies we invest in – also in collaboration with other investors (Chapter 7).

1.6 Embedding in the organization

APG has a team of eighteen specialists in sustainability and corporate governance at the offices in Amsterdam, New York and Hong Kong. The tasks of the Global Responsible Investment & Governance Team (GRIG) include the following:

- collaboration with portfolio managers for responsible investment;
- engagement with companies to encourage them to improve with respect to corporate social responsibility;
- implementation of voting policy;
- evaluation of proposals about sustainability and good governance for unlisted investments;
- engagement with regulators, supervisors and other parties involved.

The intensive cooperation between the various parts of the company has contributed to a substantial increase of focus on and knowledge of sustainable and responsible investing within APG. This expansion of knowledge within APG is in line with our aim to take a leadership role in sustainable and responsible investing. Other parts of APG, such as Fiduciary Management and Risk Management, also have sustainability and responsible investment specialists.

The availability of reliable sustainability information is crucial for the proper execution of the policy. We therefore ask companies to publish more and better sustainability information. We also do all we can to gather information ourselves. For example, we are working on a standard that will give investors insight into the degree to which companies contribute to the Sustainable Development Goals (Chapter 4).

1.7 Our pension funds top sustainability ranking

Our pension fund clients again scored high in the annual ranking of sustainable pension funds of the Dutch Association of Investors for Sustainable Development (VBDO). Just like last year, ABP, our biggest client, took first place. The fund scored 4.6 out of 5 points. BpfBOUW moved from third to second place. SPW is no. 5, as it was in 2018. The ranking is important: VBDO investigates every year how responsibly the 50 biggest pension funds in the Netherlands are investing. The pension sector as a whole scored slightly lower this year, because VBDO raised the bar.

"Research into effect on risk and returns strengthens our confidence in our approach"

Interview with Gabriëlle Krapels, Manager Mandate Research at APG

With the growing interest in responsible investing, the question arises: is investing with concern for human rights, the environment and good corporate governance also favorable for the risk and return of the investments? After all, our goal has always been and still is to provide participants with a good pension. The answer was given by Gabriëlle Krapels, who is researching this at APG.

Responsible investments and returns; what does science say?

"We got professor Kees Koedijk from the University of Tilburg to map out the current scientific insights into this subject. It was a big job, because there is a lot of academic research into the connection between responsible investments and financial performance. Koedijk looked at over 3,000 scientific publications. His **conclusion** is that responsible investment results have a neutral or slightly positive effect on the risk and return of an investment portfolio."

What does this mean in practice for the way APG invests?

"The scientific research strengthens us in the conviction that we make better investment decisions when we pay structural attention to sustainability and responsible investment. By paying close attention to this, we get a better picture of the opportunities and risks of our investments. Financial performance has always been and still is a condition for us in our choice of investments. In other words: even if an investment is good from an ESG perspective, we still only invest if the expected return, risk and cost are favorable."

APG uses its influence to convince companies to make improvements. Does this also lead to better investments?

"An essential part of our approach is that we evaluate any companies we can invest in on their concern for human rights, the environment and good corporate governance, and we have discussions with companies that still need to take some steps towards this. Koedijk's study shows that successful engagement trajectories are having a positive effect on companies' long-term financial performance. This applies particularly when the a dialogue is on subjects that could have a major financial impact on the company."

Did APG also study the effect on risk and return in its own investment portfolio?

"We are working on a method to monitor and measure the effect of responsible investing on our portfolio on a continuous basis. Where possible, we have mapped out the effect of responsible investment on risk and return since 2015. There are no indications that the policy has had any negative effect. We must stress that we were only able to look back on a short period of time and that for investments, past results are no guarantee for the future. But it does give us confidence in our approach."

Chapter 2

Active investment in leaders and laggards



As a responsible investor with a long-term view, we are convinced that we can have the greatest impact not by 'excluding' investments, but by 'including investments'. What do we mean by that?

2.1 What is inclusion?

Inclusion means that we evaluate any companies that we can invest in through shares or bonds (the investment universe) according to return, risk, cost and the degree to which they operate sustainably and responsibly. If a company meets our criteria and it scores above average in the industry in question^[2], we call that company a 'leader'. We like to invest in such companies for our pension fund clients.

In addition, there are companies that score high in terms of return, risk and cost, but lag behind in terms of sustainability and governance. We may invest in such 'laggards', but only if we expect we can inspire them to improve. We then call the company a 'potential improver'.

With the inclusion policy, we comply with the guidelines of the OECD (Organization for Economic Cooperation and Development) for systematically identifying ESG risks in the portfolio and influencing companies to scale back those risks.

2.2 The investment universe classified

In 2019, we completed the evaluation of all 10,000+ companies that we could invest in through shares or bonds. These are now classified as either leaders or laggards. The portfolio managers also determined with which laggards they want to engage. At the end of 2019, there were 240 of such 'potential improvers' in our investment portfolio. [3]

Our clients only want to invest in leaders and potential improvers from 2020 on. To make this possible for them, we are investing in digital technologies, artificial intelligence and other ways to collect data about the sustainability performance of an investment. However, a human touch is still required. The quality of ESG data is not nearly at the level of that of financial data yet, and we are investing a lot of time and money into improving this.

2.3 Leader or laggard? Our criteria

The criteria we have developed to evaluate companies are based on the principles of the UN Global Compact in terms of human rights, labor rights, the environment and business ethics. We check if companies have a good policy in these areas. We also check if they generally honor agreements or if any incidents are known. Below are some examples of themes we look at.

Criterion	Examples
Business ethics	Bribery & corruption, money laundering, inappropriate promotions of medicine, lack of whistleblower schemes
Labor rights	Health and safety at work, working conditions
Human rights	Relationships with local communities, data privacy & safety
The environment	Emission of greenhouse gases, standards for waste and water use, expansion of coal capacity

2.4 Differences between regions and sectors

We use separate criteria for every industry. They take into account the specific risks that exist in that sector. We also look at the countries and regions where the companies are active. We expect companies that are active in areas with an increased risk of human rights violations to be able to detect those risks and limit them. This means that they must at least have an appropriate human rights policy.

More: precisely: if the normalized score is above the median.

^[3] An overview of companies we have engaged, and the themes, can be found on: <u>apg.nl</u>

Inclusion: what do we look at? Three examples

Mining companies

We check if the mining companies have a good policy for managing risks such as bribery & corruption and risks related to health and safety, human rights and the environment. We also check if the company has been involved in any incidents, such as environmental contamination, corruption or violation of human rights.

Pharmaceutical companies

Pharmaceutical companies are subject to risks related to product quality and safety, aggressive marketing and bribery & corruption. For example, giving inappropriate remunerations to physicians for prescribing certain medications. We assess whether the companies we invest in have a policy and procedures to manage these risks.

Utilities

Utilities often have intensive contact with the governments of the countries in which they are active, due to the permits that are required. This creates the risk of their getting involved in bribery and corruption. In addition, we do not want utilities to put any new coal-fired power plants into operation. If they do have plans for this, we apply pressure on them to refrain from this. We instead expect the company to make plans for the transition to renewable energy.

2.5 Inclusion remains a work in progress

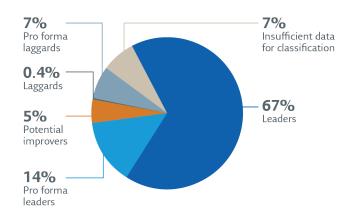
Inclusion is never 'done'. Companies change and new ones emerge. Just in 2019, over 2,000 new companies joined our investment universe. These also had to be evaluated. During the year, they received a provisional (pro forma) classification as leader or laggard. In January 2020, these classifications were officially set ('frozen'). The figures below show the situation as of the end of 2019. This explains the relatively large number of pro forma classifications.

As of the end of 2019, we sold virtually all officially classified laggards, except for 16 (0.4 % of the number of companies in the portfolio). We also want to sell these, but that was not yet possible at the end of 2019, due to, for example, trade restrictions.

The figure below shows the classification of the investment portfolio and that of the investment universe as of the end of 2019. [4]

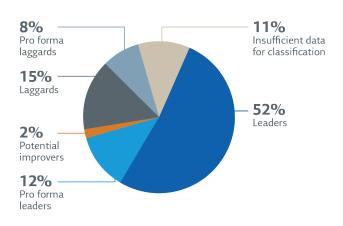
Figure 1 Leaders, laggards and potential improvers: portfolio vs investment universe (% of number of companies)

APG investment portfolio (all asset management clients)



Data as of December 31, 2019

Investment universe



^[4] This applies to the listed equity and credit portfolios, including investments in listed real estate

Chapter 3

Exclusion



The pension funds we work for do not want to invest in certain companies, countries and products. We put these on our exclusion list.

3.1 Product exclusion

We do not invest in manufacturers of weapons that are prohibited according to international treaties that the Netherlands has signed. In concrete terms this includes companies that are involved in manufacturing cluster bombs, anti-personnel (land)mines and chemical and biological weapons. We also do not invest in tobacco factories and companies that are involved in the production of (essential parts of) nuclear weapons. At the end of 2019, there were 156 listed companies on our exclusion list based on their products. [5]

We may invest in manufacturers of weapons that are not prohibited, provided they are attractive in terms of risk, return, cost and sustainability. Among the participants of our pension fund clients are employees of the police and Defense. Without weapons, the police would not be able to maintain public order and an army would not be able to ensure peace and safety.

3.2 Companies that do not honor worldwide agreements

Our clients want the companies we invest in to respect the principles of the UN Global Compact in terms of human rights, labor conditions, the environment and combating corruption. As in 2018, there are three companies on our exclusion list due to violating these principles: the Chinese energy company PetroChina, the Japanese energy company Tokyo Electric Power Company and the American supermarket chain Walmart.

Unlisted companies

There are only listed companies on the exclusion list. In contracts with external asset managers it is specified that they must also apply our exclusion policy to unlisted companies. The list that is used for this purpose includes another 119 companies. External managers do not have to apply the exclusion policy to unlisted investments that were already in their portfolio before the implementation of the exclusion policy (or parts thereof).

Index investments and ETFs (investment tools that follow an index) are not on the list either, because they are needed to manage the investments efficiently. We guarantee for 99% of our investment portfolio that it does not include shares and bonds of companies on our exclusion list.

3.3 Exclusion of government bonds

When the UN Security council imposes an arms embargo on a country, we no longer invest in government bonds of that country. After the arms embargo against Eritrea had been lifted in 2019, we removed this country from our exclusion list. At the end of 2019, there were ten countries on this list.

Chapter 4

Investment in the Sustainable Development



At the end of 2019, APG had invested € 72.3 billion in companies that contribute to the Sustainable Development Goals.

4.1 Contributions to the Sustainable Development Goals

We actively search for investments for our clients that contribute to the Sustainable Development Goals (SDGs). These were set up in 2015 by the United Nations to create a better and sustainable world. Examples are good education for everyone, climate action and accessible healthcare. These goals are so ambitious that, in addition to financing by governments, they need companies and investors to contribute.

In collaboration with PGGM, APG has developed a framework to determine which companies contribute to the Sustainable Development Goals with their products and services. We call these investments Sustainable Development Investments (SDIs)^[6]. Just like all other investments in our portfolio, SDIs must meet our criteria for return, risk and cost. If a company realistically contributes to the achievement of the SDGs, we see this as an important advantage and an extra argument to invest in that company.

4.2 Cooperation

It is important to us that investors, such as pension funds, cooperate to achieve the Sustainable Development Goals. For this reason, we took the initiative, in collaboration with PGGM, to announce the establishment of an SDI Asset Owner Platform in 2019. In 2020, we officially launched the platform together with AustralianSuper and British Colombia Investment Management Corporation. Based on artificial intelligence powered technology, institutional investors will gain insight into the degree to which their investments contribute to the SDGs. Users of the SDI standard of the platform use a common definition of SDIs. This allows them to speak with companies in one voice and report about the way they invest in and contribute to the SDGs in a comparable way.

In addition, led by the Secretary General of the United Nations, we have entered into a collaboration with 29 big international companies and investors to fuel investment in the Sustainable Development Goals together. The project, named Global Investors for Sustainable Development (GISD), is set to run for two years for the time being.

Promising technology for paraplegia patients

SDG 3: Good health and well-being

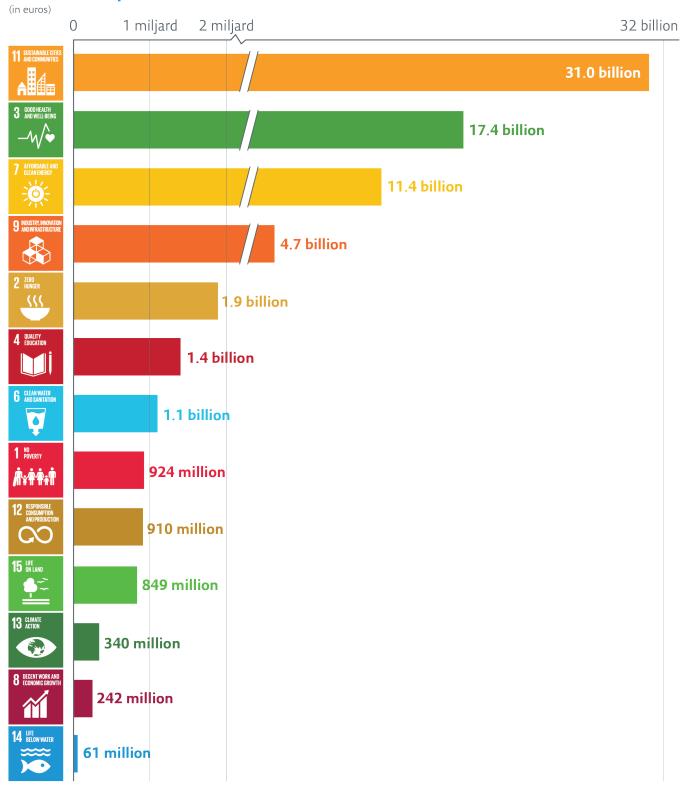
Private equity investment GTX Medical has developed a unique therapy to help people with paraplegia to move their legs again. This is done with an implant that delivers electrical currents to the damaged spinal cord. The initial results are promising; so far, eight patients have been enabled to walk again, thanks to a combination of this therapy and rehabilitation.

GTX Medical is located at the High-Tech Campus in Eindhoven and at the Technical faculty and the faculty of Bio-science (EPFL) in Lausanne (Switzerland). The therapy is based on years of research by Professor Grégoire Courtine, who is connected to the EPFL.

For our client ABP, we invest in GTX Medical through Inkef. This is a venture capital investor that ABP and APG started in 2010 in order to invest in promising new companies in Europe.

^[6] Since 2017, we report in line with our SDI definition. For 2016 and 2015, we used HSI figures.

Investments per SDG





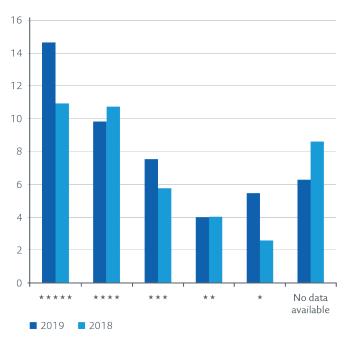
4.3 Sustainable cities and communities

We have invested € 24.3 billion^[7] in sustainable real estate. We particularly contribute to SDG 11 – Sustainable cities and communities. We qualify real estate as SDI if it scores four or the maximum five stars in the annual sustainability study of theGlobal Real Estate Sustainability Benchmark (GRESB). This means that they belong to the 40% best-performing funds.^[8]

We want all of our real estate investments to report to GRESB. This is currently the case in 87% of the (value of) the funds. For our direct investments in real estate, we make participation in GRESB mandatory. New investments also must have a rating of at least four stars within three years. The scores of the funds we invested in in 2019, are in the overview below.

How sustainable is our real estate?

GRESB scores of real estate investments, invested assets in billions of euros



In 2019, GRESB also gave us insight into the portion of our operational real estate investments that has a sustainability certificate. At the end of 2019, this comprises about 20% of all square meters reported to GRESB. This is well above the average (the GRESB Global Average) of 15.8%.

4.4 APG is one of the biggest investors in green bonds

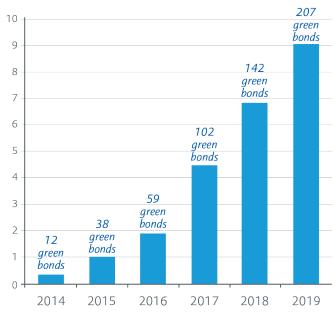
Among our SDIs, there are also many green, sustainable & social bonds (hereinafter: 'green bonds'). These are bonds issued by companies and (semi-) government agencies for the financing of social and sustainability projects.

APG is one of the biggest investors in this market. In the last few years, we have built a good relationship with parties that want to issue such bonds, as well as with bank syndicates, regulators and certification bodies. We use our network, experience and knowledge to further develop the market.

It is important that companies, agencies and governments that are considering issuing green bonds know what we expect from them. This can eliminate any worries about investors' reactions and therefore contribute to the further development of the market. APG has published <u>Guidelines for Green, Social and Sustainable Bonds</u> to that end. APG also organizes an annual roundtable meeting with market parties to discuss our expectations for green bonds. We seek these collaborations to encourage companies to issue high-quality green bonds.

How did our portfolio grow in terms of green bonds? 2014-2019

billions of euros



^[7] This number relates to direct investments in real estate. The indirect investments through shares in listed real estate are not included.

^[8] The GRESB rating indicates how sustainable a real estate company is compared to the other real estate companies that are evaluated by GRESB. Real estate in the top 20% gets five stars. The 20% lowest-ranking real estate companies get one star. More information: https://gresb.com

In May 2019, we invested in the first green Dutch government bond. With the returns, the government finances the generation of sustainable energy, making homes more energy-efficient, bicycle storage at the Utrecht Central train station, clean transport and reinforcing the dikes. The return on this bond is comparable to a 'regular' Dutch government bond. In this way, the investment not only provides a good and stable return, but also contributes to the financing of the energy transition in the Netherlands.

This green bond meets the highest standards. [9] For green government bonds, we use the same requirements with respect to return, risk and costs as for all other investments.

Enel issues the very first SDG bond SDG 7: Affordable and clean energy

On behalf of ABP, bpfBOUW and SPW, we invested in the first 'SDG bond' in 2019. This was issued by the Italian energy company Enel. This company used our knowledge and advice in the development of this sustainable loan. Within the context of SDG 7 (Affordable and clean energy), Enel has pledged that by the end of 2021 at least 55% of its capacity for energy generation will be renewable, i.e. from wind or solar. If Enel does not accomplish this (the company was at 45% clean energy on June 30, 2019) investors will get 0.25 percentage point more interest on their bonds.

^[9] This means it is recorded what the return is used for, that clear, sustainable criteria were complied with and the government annually reports about the expenditures and their effect on the environment.

Chapter 5

Human rights and working conditions



APG wants the companies we invest in to respect human rights. The point of departure is the <u>UN Global Compact</u> with principles for companies' business practices in terms of human rights, employment terms and conditions, the environment and combating corruption.

5.1 Human rights benchmark

In November, the third report of the Corporate Human Rights Benchmark (CHRB) was published. The CHRB compares the human rights performance of 195 companies in sectors where the risk of involvement in violations is big: clothing, raw materials, agriculture and - for the first time in 2019 - ICT.

In these sectors, three quarters of the companies are doing better in terms of human rights than they were a few years ago. But we also see that there is still a gap between the small group of companies that are on the right path and the large number of companies that are still not doing much about human rights.

APG was one of the founders of the CHRB in 2017. We expect that the annual publication of the human rights index will encourage companies to take human rights seriously and to give them a place in the business strategy. The ranking is also important to us to:

- gain insight into the human rights performance of the companies we may invest in;
- increase companies' awareness;
- have a starting point for discussions with companies about human and labor rights.

Increasingly investors are embracing the CHRB for the evaluation of the human rights performance of companies. Its merger with the World Benchmark Alliance in 2019 will enable the evaluation of many more companies in the future.

5.2 What does APG want to achieve?

In terms of human rights, we have special attention for several sectors where problems occur relatively often, such as the clothing industry and raw material extraction. The following factors played a role in the selection of these sectors:

- Do we have investments in companies that are active in the sector in question?
- Is the problem serious and could it have an impact on our investments?
- Do we expect that we can get companies to make improvements?

We try to make agreements with companies in these sectors to make improvements. It is also important to us that companies join initiatives in their sector to prevent malpractice and to deal with this.

^[10] For the ranking we look at salaries, work times, safety and child labor, among other things. We also evaluate how companies deal with accusations of human rights violations

Dialoog about human rights

What may indicate risks?	Examples	Possible risks	What do we expect?	Example dialogue
Sector	Telecom and software	Violation of clients' privacy; government requests client details	Company shows it is aware of the risks and shows it is prepared to take action; has human rights and privacy policy	Alphabet (Google)
	Energy and mining	Negative impact on local community; excessive violence to guarantee safety	Company shows it is aware of the risks and shows it is prepared to take action; has human rights and privacy policy	Barrick Gold
Country/ region	Companies active in disputed areas or countries where human rights are violated	Company may have direct or indirect connection to human rights violation	Company shows it is aware of the risks and shows it is prepared to take action; has human rights policy	HeidelbergCement
News / Incidents	Companies in the news due to labor unrest, accidents, discrimination, land conflicts, or child labor	Incidents may indicate that company does not have a good handle on processes and human rights may be violated	Company is taking actions to solve problems, limit impact and minimize risk of repetition	Wynn Resorts

5.3 Theme: fair raw materials

Particularly in countries with unstable or authoritarian regimes, the presence of raw materials and – often foreign – extraction companies may contribute to the violation of human rights. It could concern, for example, land rights, bribery and corruption, environmental degradation and unsafe working conditions. APG had discussions with thirty companies in the raw materials sector in the past few years.

We expect all the companies involved to develop a policy approved by the executive board regarding human rights, including the commitment to investigate, deal with existing problems and implement a complaints procedure.

One challenge is that addressing human rights in 'risk countries' is often subject to political sensitivities. It is also not always clear what is the responsibility of a company and what is the responsibility of the government of the country where the company is active.

5.4 Theme: digital rights in the ICT sector

When ICT companies do not treat personal data in the right way, this can lead to data leaks and violation of human rights, such as the right to privacy, freedom of expression and protection from discrimination. This is also referred to as 'digital rights'.

We expect companies in the sector to pay attention to privacy and human rights at the highest level, to be open about their policy and its execution in practice, and to cooperate with other ICT companies to prevent digital rights from being violated. In 2019 we were in discussion with Facebook, which came into disrepute when it was found that the political marketing company Cambridge Analytica had gained access to the personal data of the users. Since then, Facebook has explicitly declared data privacy to be the responsibility of the executive board.

Although progress was made, respect for digital rights clashes with how ICT companies make money: by accumulating user profiles through 'free' services and selling customized ads.

5.5 Theme: malpractices in the clothing industry

APG has been in discussion with ten big clothing companies about safety and fair labor since 2015. We encourage them to be more transparent about their suppliers, so that we can hold clothing companies and brands accountable. When companies have a better view of their supply chain, they can also deal with malpractices more effectively.

The number of clothing companies that are open about their suppliers has doubled in the past three years.^[11] Sustainability is also increasingly playing a role for companies in their choice and evaluation of suppliers.

Since the collapse of the production complex Rana Plaza (2013), over 1,600 textile factories in Bangladesh have been evaluated for safety by independent inspectors. After the Bangladeshi judge had determined that the inspections must be stopped, we made a strong case for continuation. Thanks to international pressure, the termination of the inspections was prevented in 2019.

^[11] Seven (of the ten) companies we spoke with have now published a list of suppliers.

APG joined in with the calls from the Bangladesh Investor Initiative for the continuation of the Bangladesh Accord, in September 2018 and February 2019.

Nevertheless, the clothing sector is still characterized by long supply chains, 'fast fashion' and intense competition for production costs. As yet, very few consumers seem prepared to pay for fair fashion.

5.6 Theme: safety in the shipbuilding industry

There is a relatively high number of fatal accidents in the shipbuilding industry. APG wants shipbuilders to recognize the importance of occupational safety and develop policies to improve safety in the sector.

Our efforts are focused on several Chinese and Korean shipbuilders, because they are the countries with the most safety incidents. Several large buyers of ships have an important role to play here; we are encouraging them to address structural safety with the suppliers. We are seeing that they are paying more attention than before to safe working conditions when tendering orders and they are holding suppliers accountable more often.

The shipbuilding industry is very dependent on developments in the world economy. There is a chance that the big buyers of ships will look for cheaper alternatives during an economic downturn. The question then will be whether the Asian shipbuilders will continue on the same track of their own accord.

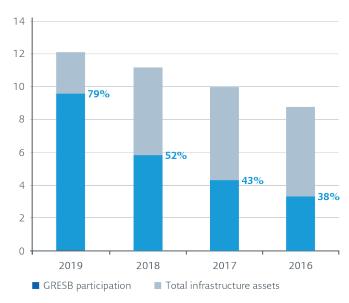
5.7 Theme: safety in infrastructure

We want to be able to assess whether enough attention is given to safe and healthy working conditions in our infrastructure investments. Our goal is for half of our infrastructure investments to participate in the annual GRESB infrastructure asset assessment for safety and sustainability in 2020. APG is one of its initiators.

In 2019, 79% of our investments (based on invested assets) participated in this assessment. For investments in new infrastructure, participation in the GRESB infrastructure assessment is a condition.

GRESB participation infrastructure investments

in billions of euros



Examples of APG's infrastructure investments are the Route du Soleil in France and Merkur Offshore, a big wind farm in the German part of the Wadden Sea (more about this in Chapter 6).

At this time, we do not yet have reliable numbers that are needed to assess whether safety and health have improved in infrastructure. We are also seeing that companies are primarily focused on their own employees and much less on those of other parties involved.

5.8 Theme: cobalt working conditions

Cobalt is an indispensable raw material for batteries in, for example, electric cars and smartphones. APG is the initiator of a collaboration between major investors to tackle child labor in cobalt mining in the Democratic Republic of the Congo, where half of the world's production comes from.

We are focused on fifteen major electronics, auto and battery manufacturers. We want them to determine where their cobalt is coming from and to develop a policy to limit the risk of involvement in the violation of human rights. We also expect them to take measures if they detect any malpractices.

Most buyers we have spoken with have now identified their supply chain and set up controls. Some companies have also developed programs to support local communities and for safe and socially just extraction of cobalt in artisanal mines.

5.9 Theme: child labor in the cocoa sector

We ask chocolate and cocoa companies to publicly commit to the elimination of child labor and to develop initiatives to identify and combat child labor in the local cocoa-producing communities. We also want them to cooperate within the sector and report on their efforts.

In recent years, we have been focusing on five major buyers and traders of cocoa: Barry Callebaut, Lindt & Sprüngli, Mondelez, The Hershey Company and Nestlé. Together, they supply over half of all the chocolate consumed worldwide. These companies have taken big steps, including setting up controls to eradicate child labor in hundreds of local communities. Within the CocoaAction initiative, the sector has also developed a joint approach to child labor.

This has not yet solved the problems in the sector. Child labor in cocoa farming has deep-rooted and structural causes. Yields are very low and entire villages are dependent on the erratic world market for cocoa. A successful approach therefore requires the commitment of all parties involved.

5.10 First case of IMVB covenant

In 2019, the Dutch pension sector gave further substance to the covenant on International Socially Responsible Investment (IMVB). In this covenant, agreements have been made with the Dutch government, trade unions and environmental and social organizations to prevent abuses in the companies in which investments are made.^[13]

A limited number of pension funds - including ABP, bpfBOUW and SPW - are also collaborating on six specific projects to increase their influence as responsible investors. The first case within this 'deep track' was identified in 2019. It concerns an international mining company. In the mining industry, the risk of involvement in violations of human and labor rights is relatively high. The covenant parties are developing a joint strategy to ensure that the dialogue with the company in question has the greatest possible effect.

In 2019, we also worked hard on the 'toolbox' that will help pension funds implement the agreements in the covenant. The number of participating funds has increased to 81, which together represent 90% of the Dutch pension assets.

On behalf of our pension fund clients, APG was one of the pioneers of the IMVB covenant, which was signed at the end of 2018.

^[13] Guidelines for the agreements in the covenant are The OECD rules for multinational enterprises and the UN Guiding Principles for Business and Human Rights.

Chapter 6

Climate change and the environment



The consequences of climate change are becoming increasingly visible. APG belongs to a select group of asset managers that are world leaders in identifying climate risks and the potential impact on investments.

6.1 Targeting climate risks

APG invests all over the world and has a very diversified portfolio. We therefore expect climate change and the energy transition to impact our investments gradually. However, we remain vigilant to sudden and unexpected changes. We are also already taking measures to make the portfolio climate-proof, such as:

- When making investment choices, we take into account the future costs that a company will have to incur as a result of climate change, such as rising costs for carbon emissions.
- We are engaging with companies about their strategy for the transition to a carbon-neutral economy.
- We are reducing the carbon emissions of our equity portfolio in line with the objectives of our pension fund clients.

In 2019, APG took steps to gain better insight into the physical and transition risks of climate change when investing in real estate. Physical risks (such as damage caused by extreme weather) strongly depend on the location of the investment. We are working on a database of the physical climate risks of our global real estate investments. In doing so, we are combining information from multiple data providers.

Transition risks are about the future costs of making a property comply with increasingly strict climate legislation. In 2019, APG, in collaboration with others, launched an initiative that enables real estate investors to assess the transition risks per type of building and per country. The initiative builds on the Carbon Risk Real Estate Monitor (CRREM), which is financed by the European Commission. With financing from APG and PGGM, the CRREM project is being expanded to include the housing sector and important real estate markets outside the European Union.

Each year, the Asset Owner Disclosure Project (AODP) maps out how institutional investors and their asset managers take climate risks and opportunities into account in their policies. APG ranks fourth in the list of the world's 75 largest asset managers. The rating (A) is the highest awarded this year. More on how we are taking climate change into account in our investment choices can be found in Appendix 1.

6.2 Climate Action 100+

In collaboration with around 370 other major investors, we are putting pressure on 161 companies that emit the most carbon worldwide. These include companies in transport, energy and agriculture. This collaboration has existed since 2017 under the name Climate Action 100+. By joining forces, we can effectively exert our influence.

Climate Action 100+ requires companies to:

- integrate climate risks and opportunities into their governance, management and business models;
- take measures to reduce greenhouse gas emissions;
- provide insight into the financial risks of climate change according to the standards of the Task Force on Climaterelated Financial Disclosures (TCFD).

Nestlé announced in October that it wants to be completely climate neutral by 2050. This means that on balance the food company will no longer emit any carbon. Nestlé is committed to, among other things, developing low-carbon products and packaging, stimulating responsible land use and planting forests. Within Climate Action 100+, APG is taking the lead in the engagement with Nestlé.

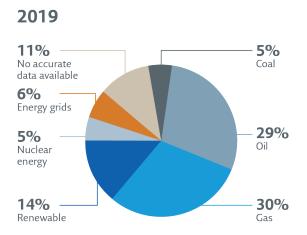
APG is also part of the 'core group' of investors that focus on major oil and gas companies within Climate Action 100+. In December, the Spanish oil and gas company Repsol announced that it wants to reduce net carbon emissions to zero by 2050. This concerns its own emissions as well as those of customers, such as motorists and power plants. In addition to reducing emissions, Repsol also wants to store carbon and plant forests. Industry peer BP promised in 2019 to set measurable targets for carbon reduction in the short term and to link these to the remuneration of top management. BP has now further finetuned its climate ambitions.

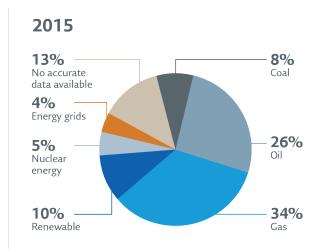
6.3 Energy mix

APG's total investments in the energy sector amount to approximately €30.7 billion. This is 6% of the assets we manage on behalf of our pension fund clients. At the end of 2019, 14% (2018: 11%) of our energy portfolio consisted of renewable energy. Our share of lignite and coal decreased from 8% in 2015 to 5% at the end of 2019. We are now investing less in companies with coal-fired power plants, which contributes to our pension fund clients' goal to reduce the carbon footprint of equity investments (see 6.5).

 $^{^{[14]}}$ The analysis is carried out by the Institut für Immobilienökonomie (IIÖ) with the support of GRESB.

Division of energy investments (in %)





Explanation: When calculating the energy mix, we assign part of a company's value to a specific energy source. The energy mix only relates to energy producers; green bonds or wind turbine producers, for example, are not included.

Dilemma: Investing in nuclear energy

APG invests in the energy company Engie, whose subsidiary company is the owner of the nuclear power plants Doel and Tihange (Belgium). We understand that people have concerns about nuclear power plants in their vicinity. APG uses its role as shareholder to keep emphasizing to Engie the importance of safety in nuclear power plants.

In 2019, as in previous years, we talked to the company about the safety of Tihange and Doel. In our opinion, Engie is handling the safety of the nuclear power plants with care. In addition, the responsible business unit is under the independent supervision of the Belgian supervisor and the International Atomic Energy Agency. In the coming years, Engie will be investing billions of euros in renewable energy and will be selling or closing its coal-fired power plants.

6.4 Investments in renewable energy

Our investments in renewable energy, such as solar and wind energy, increased again in 2019. At the end of 2019 we had invested € 7.4 billion (2018: € 5.8 billion).^[15]

In December 2019, APG acquired a majority stake in Merkur Offshore. This wind farm in the German part of the North Sea consists of 66 wind turbines and has a capacity sufficient to supply 500,000 households with sustainable electricity. This will prevent approximately 18 million tons of carbon emissions during the lifespan of the project. This investment is made on behalf of ABP and PPF-APG.

Our infrastructure investments generate 5.3 TWh of renewable energy annually (2018: 4.7 TWh). Assuming an average annual consumption of 3,500 KWh per Dutch household, our investments provide over 1.5 million households with green energy.

6.5 Carbon footprint equities

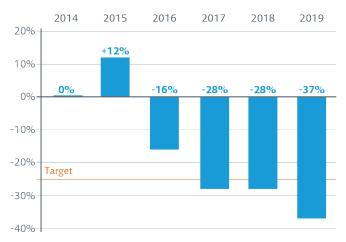
APG is mapping out how much carbon is emitted by companies we invest in through equities and how much of this is attributable to us (carbon footprint). All pension fund clients have a target for carbon reduction of the equity investments. We constantly monitor the carbon footprint and are able to take it into account when making investment decisions.

The carbon footprint of our equity investments has decreased by 37% compared with baseline year 2014. The reduction over the past five years was achieved primarily by investing less in carbon-intensive sectors (such as energy and raw materials) and by focusing on the best-performing companies in the sector with respect to carbon reduction.

^[15] When calculating investments in renewable energy, we only include a company if a certain percentage of its production is related to renewable energy. We also include green bonds whose proceeds are used for renewable energy or technology related to renewable energy.

The sharp reduction in the carbon footprint is also linked to the exceptional situation in the financial markets caused by the corona crisis in the first quarter of 2020.^[16] As a result, we invested less in sectors like energy and industry. Because these sectors make a significant contribution to the amount of carbon in the equity portfolio, the reduction of the carbon footprint has accelerated significantly. At the end of 2019, the reduction was still -30%.

Relative carbon footprint of equity portfolio



The absolute footprint was 20.4 million tons of carbon. This is a 44% reduction compared with 2014. During the same period, the benchmark footprint remained more or less the same. The benchmark is the pool of investments with which we make comparisons for our return and risk objective. The conclusion is that total emissions from 'the market' remained relatively stable, while emissions from APG's equity portfolio fell sharply.

6.6 Climate commitment of the financial sector

Invest in the energy transition, be transparent about your carbon emissions and take measures to limit them. Fifty Dutch financial institutions, including APG, committed themselves to this assignment in July 2019 by signing the Climate Commitment of the financial sector. In doing so, the sector voluntarily joined the National Climate Agreement.

From 2020 on, asset managers and pension funds must show the carbon footprint of their investments and loans every year. APG has been doing this for equities since 2015. Now we are also going to map out the carbon impact of other investments, such as bonds and real estate. By 2022 at the latest, our pension fund clients will link them to concrete targets for 2030.

It has also been agreed that the financial sector will contribute to financing the energy transition. In 2019, we set up the ABP Netherlands Energy Transition Fund (ANET) on behalf of ABP. This fund invests in companies committed to the transition to sustainable energy in the Netherlands. ANET focuses on investments in relatively small and innovative projects and companies. ABP has set aside €50 million for ANET; the pension fund may increase this amount at a later date.

6.7 Making homes sustainable

Help people to make their homes more sustainable in a financially attractive way. That is the idea behind the green mortgages of Rabobank subsidiary Vista Hypotheken (Vista Mortgages). In January, APG announced that it is investing over €500 million in these green housing loans on behalf of ABP, bpfBOUW and SPW. Clients receive a discount on their mortgage interest if they buy a home with an energy label A. The discount also applies if customers upgrade the sustainability of their homes to energy label A during the term of the mortgage.

In February 2019, APG co-created LIST Amsterdam, a platform for providing loans to Dutch housing corporations. This makes it easier for housing corporations to obtain financing for making the housing stock more sustainable, among other things. More about LIST Amsterdam in the interview on page 32.

6.8 Responsible land use

Deforestation plays an important role in global warming; about 12% of all carbon emissions are caused by logging. Forests produce oxygen and extract carbon from the air. Logging and burning forests release greenhouse gases.

In September, APG joined a <u>call</u> from 251 major investors to halt deforestation in the Amazon. In recent years, a lot of forest has been lost in this region due to logging and forest fires. The investors emphasize the importance of responsible land use for the preservation of biodiversity, food security and the achievement of the Paris climate targets. Therefore, illegal logging and forest burning for agriculture must be tackled firmly. Also, less forest must be logged legally, and companies must take measures to ensure that no forest has to disappear to make room for their commercial operations.

¹⁶ The carbon footprint is always determined on the basis of the portfolio composition on 31 March following the year under review.

"Increasing the sustainability of rental housing requires access to financing"

Interview with Hans van Westrienen, Senior Portfolio Manager at APG

In order to achieve the agreements made in the National Climate Agreement, housing corporations must make 2.4 million rental homes more sustainable in the coming years. This is an enormous task that will require a lot of money. APG invests in bonds to finance housing corporations and co-founded a platform for direct loans to the sector in 2019.

Why do housing corporations have to make their housing supply more sustainable?

"In the climate agreement, measures have been agreed on to reduce carbon emissions by 49% in 2030 and 95% in 2050.^[17] The 'built environment' must make a substantial contribution to this. For the housing corporations, this means that they must make 2.4 million rental homes - a quarter of the Dutch housing stock - more sustainable. Consider, for example, insulation and replacing gas with renewable energy sources."

That sounds like a formidable task...

"Yes, it is. Add to this the fact that the housing corporations want to build 34,000 social housing units every year - double what has been built in recent years - to deal with the increasing housing shortages. And that they also need to invest in the livability of neighborhoods. Then it is clear that billions will be needed in the coming years, for available, affordable and sustainable rental housing."

Why does APG want to contribute to the financing of housing corporations?

"It is important for housing corporations to have the money to invest in making homes more sustainable and in building new rental homes. On behalf of our pension fund clients, we want to contribute to the energy transition and to affordable rental housing for people with a smaller budget. Without affordable rental housing, there is less room in the big cities for beginning teachers, police officers and nurses, for example, while they are essential for a livable city."

How is APG doing this?

"In 2019, we co-created LIST Amsterdam, an online platform for financing Dutch housing corporations. The arrival of new financiers makes it easier for the corporations to attract money for investments. By now, the first loans have been granted through LIST Amsterdam. We also invest in bonds issued by Bank Nederlandse Gemeenten (BNG) and Nederlandse Waterschapsbank (NWB). These in turn provide loans to housing corporations."

What about the return?

"These investments provide a stable and long-term return. Loans to housing corporations for the performance of their public duty - such as building social housing - are guaranteed by the state via the Waarborgfonds Sociale Woningbouw (WSW, Social Housing Guarantee Fund). The interest rate is slightly higher than on Dutch government bonds. This enables us to achieve a higher return at a comparable risk."

How do these investments fit in with the sustainability objectives of our pension funds?

"The bonds and direct loans to housing corporations contribute to cities and communities that offer a place for everyone. This is one of the Sustainable Development Goals set by the United Nations in 2015. It is important to our pension fund clients to invest in companies and projects that contribute to the Sustainable Development Goals. Our biggest clients, ABP and bpfBOUW, also have a separate target for that purpose."

^[17] Compared with baseline year 1990.

Chapter 7

Good corporate governance

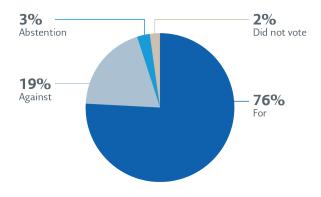


APG considers good corporate governance a precondition for a company to be able to operate responsibly.

7.1 An active voting policy

In 2019, APG promoted good corporate governance by voting at 5,000 shareholder meetings and having discussions with 716 companies. Our <u>website</u> provides an overview of these companies and the topics we discussed with them. In 2019, we voted on more than 52,000 proposals and resolutions on behalf of our pension fund clients.

How did we vote on all 52,909 proposals?

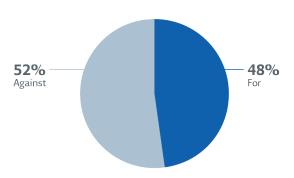


7.2 Votes on remuneration

The remuneration policy for directors should be in line with the general remuneration policy for the company's employees. We expect companies we invest in to clearly show in the annual report how directors' remuneration is managed, what the targets are and what performance must be achieved before any remuneration or bonus is paid.

In 2019, we voted on 1,770 remuneration proposals. For 52% of the proposals this was a vote against (2018: 42%), for 48% a vote in favor (2018: 56%). Important reasons for voting against remuneration proposals were the same as last year: overly generous severance arrangements, insufficient link between remuneration and performance, and unclear performance criteria.

How did we vote on 1,770 remuneration proposals?



In 2019, we spoke to twelve big companies about their remuneration policies within the framework of the Amsterdam Group. This is an international alliance of pension funds and administrators, with a combined total of approximately €1.3 trillion under management. Of the twelve companies, three showed an improvement.

CVS Health Corp: Profit goes down, bonus goes up

We had discussions with CVS Health Corp, an American pharmaceutical company, about the relationship between reward and performance. The CEO had received the highest bonus in the company's history for 2018, while the company's earnings were poor. We informed the board that we expect no bonus to be paid out (not even a partial one) if the company fails to meet its targets. We voted against the remuneration policy at the shareholders' meeting but were in the minority. We continue to press the company for a thorough reform of its remuneration policy.

7.3 What about APG's remuneration?

At APG we follow a controlled and prudent remuneration policy that enables us to attract and retain qualified employees with integrity. This requires a balance between the remuneration of the executive board and employees, and a balance between the remuneration of different parts of the organization. Equal pay between men and women is also very important to us. For example, 125 women at APG received a pay increase on June 1, after research had shown that they earned less than men in the same position, with comparable experience and skills.

We look at what is customary in the market and use that as a yardstick for the remuneration of our employees. As a major investor of pension funds, we work in an international, commercial and competitive market. We seek a good balance between an attractive remuneration policy and our aim to create the greatest possible pension value for our pension fund clients' participants. Detailed information on our remuneration policy can be found in our annual report.

Bonuses

APG's executive board does not receive any variable remuneration (bonus). Variable remuneration is also not customary for employees at APG Netherlands. In the Netherlands, only APG employees with a direct impact on the investment result are eligible for variable remuneration. For employees of APG Asset Management abroad, we seek a balance between what is acceptable and what is customary in the country concerned, to retain employees at APG.

The reason for paying our portfolio managers variable remuneration is that APG makes about three quarters of all investments itself and thus wants to ensure it gets the right people for the job. In order to attract good investors, it is customary in the market to pay performance-related bonuses. These are recouped by the fact that good investors are able to generate additional returns for participants in the long term and that the costs of internal management are lower than if we were to outsource asset management to external parties.

In 2019, APG paid out approximately €40 million in variable remuneration. Of this amount, approximately €6 million was paid out in the Netherlands.

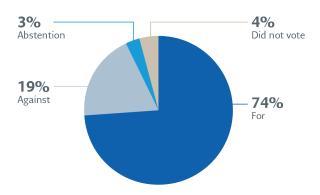
7.4 Voting on directors

When we vote on the appointment of new directors in the companies we invest in, we check whether there is a good balance between the number of executive and non-executive (supervisory) directors. We also want the majority of non-executive directors to be independent. Directors must have the right knowledge and skills as well as being trained on a regular basis.

We expect that if directors wish to stay on the executive board after four years, they should apply for reappointment; after twelve years they should preferably apply annually. At larger companies, especially those in sectors with a major impact on people and the environment, we expect the board to have a director who is responsible for sustainability issues.

In 2019, we voted on a total of 20,692 nomination proposals. We voted in favor in 74% of the cases. This is the same percentage as in 2019.

How did we vote on 20,692 directors?



7.5 Diverse executive boards can make better decisions

Scientific research supports our view that diversity leads to better decisions. Diversity can relate to a balanced mix of gender, ethnic background, education, personality and age. We ask companies to take this into account when appointing directors.

A diverse, inclusive culture at APG

APG strives for a diverse, inclusive culture where employees can be themselves. Not only because we believe in equal opportunities for all, but also because this leads to greater satisfaction and commitment.

Compared with many other companies in the financial sector, we still have a long way to go in terms of gender diversity. Two-thirds of APG employees are male. Relatively few women work in the IT and asset management departments in particular. We want to gradually change that. In senior management, but also in recruiting other employees, we ask agencies to actively contribute to our diversity ambitions.

APG employs a small group of people with limited working capacity who would have few opportunities in the labor market if they had to leave APG. That is why we specified in the Collective Labor Agreement that we will set up ten supported custom workplaces. These are specially designed for our own employees, so that we can take their working capacity into account and retain them for APG.

7.6 Reliability of greenhouse gas emission data

Many companies have ambitious targets to reduce their carbon emissions. Yet global emissions are still increasing. To see what's really happening at companies (and not just on paper), we thoroughly check companies' climate reports. In doing so, we come across companies that report large reductions in greenhouse gas emissions, solely because they have modified their calculation methods or assumptions. For example, we held talks with a European real estate company, which had adjusted the assumptions for the emissions of its buildings in 2018 to be able to report a reduction. If it had used the same assumptions as before, there would have been an increase.

7.7 Prevention of money laundering at banks

Preventing money laundering at banks was also an important topic in 2019. We spoke to Credit Suisse, among others, about combating bribery and corruption and about measures to prevent money laundering. At the bank, standards of conduct and ethics drawn up by the company in 2017 now play an important role in the assessment, hiring and promotion of staff.

Employees are also trained annually in the prevention of financial crimes. We have asked Credit Suisse to publish its anti-bribery & corruption policy. The bank has promised to share the principles of this policy with us.

^[18] For example: Marcus Noland, Tyler Moran, Barbara Kotschwar, "Is Gender Diversity Profitable? Evidence from a Global Survey", Peterson Institute for International Economics, 2016.

"It takes years of building trust to get past Investor Relations"

Interview with Yoo-Kyung Park, Head of Responsible Investment & Governance Asia-Pacific at APG

With a background in student activism and investment banking, Yoo-Kyung (YK) Park is driven to change corporate Asia for the better. She's been at it for eleven years, and is by no means less committed.

In what ways does engagement in Asia differ from that in other parts of the world, such as Europe?

"There is a big difference between the various countries in Asia. There are developed countries, such as Japan, Singapore and Hong Kong, and developing countries, which include China, India and South Korea. What they have in common, though, is that their ESG standards are still under development."

"Some practices that we take for granted in Europe, are not so common in Asia. In Europe, for example, if you want to engage with a company, you can talk to senior management or even board members and you tend to get the information you need. To get this type of access in Asia, you need to invest a lot of time and effort to build trust. Only after several years will board members open to you. I have been engaging with Samsung Electronics on various corporate governance issues for eleven years. Although the company has made positive changes, I am still not done talking to them."

How receptive are Asian companies to what you ask of them?

"It depends on what you're asking. If you want a company to improve its reporting, you can talk to the Investor Relations department, and there's a good chance they will respond to your request. But if you want a company to change its corporate culture, or deal with bribery and corruption, it's not that straightforward, especially if our holding in the company is relatively small. In such cases it's not easy to get access. So you have to be resourceful and come up with other ways to gain influence. I then seek cooperation with other parties, such as politicians, diplomates, NGOs, or the media."

How do you find a way to deal with more sensitive topics, such as human rights?

"It depends on the country. In Japan, you can talk about human rights, but in China you need to come up with less direct ways to address this. You have to make the topic about, for example, employees' health & safety, or working conditions for migrant workers. You need to make it specific. And you always link it to the impact it can have on a company's business. When I talked to Korean shipbuilders about fatal accidents in their operations, and did not get a satisfactory response, I alerted their clients, the large ship buyers, to this issue. They were concerned about safe working conditions and called on the shipbuilders to improve them. Several oil companies have now paid more attention to the safety standard for Korean shipbuilders."

Is the fact that you are a woman an impediment in some countries?

"It was and still is. There are some very conservative countries. When I organize a meeting with executives or policy makers in countries like Japan and South Korea, all the others in the room are men and I am not expected to ask questions. I find that I have to push harder and make a bigger effort to get my message across. But I don't mind. It's my message that's important."

You have been in this job for over a decade. What keeps you going?

"I want change. I don't just want to keep talking for the sake of talking. I see hope for Asia. The culture and mindset of board members are changing and we have managed to make concrete changes for the better. What gives me courage is that I know I always have the backing of APG and its pension fund clients. I know that they are genuinely committed to change. As a result, I have zero doubt in what I ask from companies."

Chapter 8

Looking ahead to 2020 and beyond



For APG, 2020 will be dominated by the implementation of ABP's new responsible investment policy, policy-making for other pension fund clients and further implementation of the IMVB covenant, among other things.

8.1 New ABP policy

In February 2020, pension fund client ABP announced its renewed sustainable & responsible investment policy for the period of 2020-2025. The starting point is a vision of what the world should look like in 2050: a climate-neutral global economy, characterized by responsible (re)use of raw materials, in which digital technology contributes to sustainable solutions.

ABP's new policy responds to the risks and opportunities associated with the three major transitions that will shape this vision of the future in the coming decades:

- climate and energy transition;
- scarcity of raw materials and handling of natural resources;
- digitalization.

These themes fit in well with the Sustainable Development Goals. In implementing this policy, we will focus on investing more in companies that do well on these themes, more targeted engagement with companies, and fine-tuning the criteria for inclusion. ABP has also decided to extend the exclusion of government bonds to countries where an EU arms embargo has been imposed.

8.2 Policy development at bpfBOUW and SPW

For bpfBOUW and SPW, the responsible investment policy period ends on 31 December 2020. We are already working with our clients on policies and objectives for the next period. Recently, bpfBOUW and SPW decided to fine-tune the policy for government bonds in the short term. To this end, additional criteria are being introduced, such as EU arms embargoes and assessments of democracy, freedom and human rights.

8.3 Implementation of IMVB covenant

The covenant on International Socially Responsible Investment (IMVB) will be further substantiated in 2020. All participating funds must have integrated the IMVB provisions into their policies by 2020. The IMVB covenant also entails an extension of the reporting requirements in the coming years. This will involve both our reporting to pension fund clients and the provision of information by the funds to members. In anticipation of these new obligations, we will start adjusting our reporting processes in 2020. Finally, the participating parties will work on additional cases on the 'deep track'.

8.4 SDI Asset Owner Platform

After years of co-operation, APG and PGGM announced the creation of an SDI Asset Owner Platform in 2019. The platform has meanwhile been launched in 2020, joined by AustralianSuper and British Colombia Investment Management Corporation. Our aim is for a significant number of financial institutions to use a standard to determine the extent to which they contribute to the Sustainable Development Goals. The methodology behind the platform makes consistent, systematic use of financial data and artificial intelligence. This allows users to speak with one voice to companies, report in a similar way, and be transparent to their stakeholders about their contributions to the Sustainable Development Goals. We are continuing to refine the methodology. Our aim is to include forward-looking variables and measure the changes that investments have led to.

8.5 Insight into impact on risk and return

In 2020, we will further refine the analysis for measuring the impact of responsible investment on risk and return. Our aim is to develop a method by which we can measure and monitor the impact of responsible investment on an ongoing basis. We want to be able to do this in a variety of asset categories, initially for liquid investments such as equities and corporate bonds. The aim is to gain more insight into the impact of the various policy instruments, such as inclusion, exclusion and SDIs, on the risk and return of investments.

Appendices



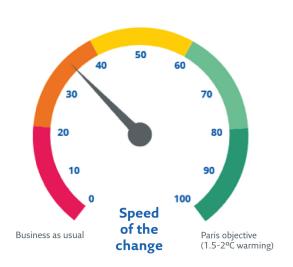
Appendix 1: Addressing climate risks and opportunities

This appendix shows what activities APG undertakes to identify and manage climate risks and opportunities. We follow the framework established by the <u>Task Force on Climate-related</u> Financial Disclosures (TCFD).

In this report, climate change and the energy transition are not only discussed in a chapter of their own but are also addressed in various chapters that focus on other themes. This appendix discusses what APG did in 2019, but also what we set in motion in previous years. Information about our climate approach can also be found in our report on the Principles for Responsible Investment (PRI).

APG has developed a climate dashboard to provide insight into how fast the energy transition is progressing. We are looking at 20 indicators, such as the global demand for fossil fuels and investments in renewable energy. The dashboard gives an indication of the extent to which the world is on track to achieve the Paris target of limiting global warming by 1.5 to 2 degrees. Measurements taken at the end of 2019 show that the speed of transition is still insufficient to achieve this objective.

The climate dashboard



1. How have we structured governance around climaterelated risks and opportunities?

On behalf of our pension fund clients, APG is responsible for integrating climate change into the investment process. In 2019, APG adopted a formal climate risk policy and added climate risks to the risk taxonomy for investments. A climate steering group has been appointed at APG, whose task is to coordinate the various initiatives in this area and to set priorities for further research. The steering group consists of members

from various parts of the company: portfolio management, risk management and fiduciary management.

2. What are the actual and potential impacts of climaterelated risks and opportunities on our business operations, strategy and financial planning?

We classify climate factors that may impact our investments as follows:

Climate factor	Description
Policy & Legislation	The impact of tighter climate policies on companies and investors, e.g. pricing of carbon emissions, incentives for cleaner alternatives, or restrictions on carbonintensive industries.
Technology, Market & Reputation	Effects of the availability of cleaner alternatives to carbon-intensive production methods or products (e.g. electric cars or energy efficiency). Changes in consumer, business and investor preferences for the products they buy or companies they want to invest in.
Physical Impact	The effects of changing weather patterns, including more frequent and more intense extreme weather (such as floods) and structural changes (e.g. prolonged drought).

Within these three categories we distinguish a total of 44 types of climate risks and opportunities. These factors can adversely affect our investments, such as the declining value of fossil fuel investments. But they can also create new investment opportunities in industries such as renewable energy, electric transport and water management.

In order to identify such climate risks and opportunities for our portfolio, we have used scenario analysis. This technique is suitable because little historical information is available. That is why it is better to work with constructed future scenarios and to examine what would happen to the portfolio if such a scenario were to become reality.

We used two scenarios for the climate analysis. One scenario leads to a warming of 3.7 degrees because governments take too little action and green technologies do not develop fast enough (the so-called 'business-as-usual' scenario). The second scenario describes a world in which governments are serious about meeting the Paris climate targets and the markets are responding to them (the so-called '2-degree scenario').

With these scenarios we have summarized climate risks and opportunities for 26 specific economic sectors. Together, these sectors represent more than half of the value of the investment

portfolio. We looked ahead to 2022, 2030 and 2040.

The resulting picture is that the effects of climate change will be huge and all-encompassing by 2040. Leading up to 2040, the transition is gradual for a global and diversified portfolio such as that of APG. However, the transition may be accompanied by disruptive changes and unexpected tipping points, which we must keep a close eye on.

We are already seeing major transitions in the 2-degree scenario before 2030, with associated risks and opportunities, particularly in the following sectors: power plants, real estate, cement industry, oil and gas, aircraft industry, food and consumer goods, automotive industry, semiconductors and electrical goods, agriculture, chemicals, and construction.

Sectors that are particularly vulnerable to the physical impacts of climate change, but that also have opportunities are: agriculture, forestry, real estate, water plants, oil and gas, food processing, road and rail transport, mining, power plants, healthcare and construction.

In addition to mapping sector effects, we also took climate factors into account in the macro-economic models we use for our strategic investment plan. Using two scenarios ("climate pit" and "good globalization"), we mapped out the possible consequences for growth, inflation and other economic variables.

A follow-up analysis also identified the climate risks for government bonds. [19] This shows that the exposure to countries with a high climate risk (physical and transition risks) is very limited and corresponds to the benchmark exposure.

In addition, APG took steps in 2019 to gain a better insight into the physical and transition risks of climate change when investing in real estate. Based on information from multiple data providers, we are developing a database of the physical climate risks of our global real estate investments. In 2019, in collaboration with other parties, APG launched an initiative - building on the Carbon Risk Real Estate Monitor (CRREM) - that enables real estate investors to assess the transition risks per type of building and per country.

3. What processes do we use to identify, assess and manage risks associated with climate change?

The results of our climate scenario analysis are documented in a stoplight model, giving us insight into the main climate opportunities and risks in 2022, 2030 and 2040. We repeat this analysis every two years to incorporate the latest developments and insights into the scenarios.

The portfolio managers and sector specialists of the various investment categories are primarily responsible for managing climate-related risks and seizing opportunities, as this is where the specific knowledge is on how climate change may affect investments. As part of their investment analysis and risk management, they pay attention to short, medium and long-term climate risks. The insights from the climate scenarios can point them to areas of attention and priorities for further research. This makes the portfolio managers the so-called first-line function within the risk management framework.

Here are a few examples of how our investors analyze and manage risks and opportunities:

- The portfolio managers actively follow relevant regulatory, technological and market developments.
- APG has not invested in new coal-fired power stations in its infrastructure portfolio for over ten years and will not be doing so in the future. We are asking coal companies in other portfolios to stop expanding coal plants and to develop a strategy to switch to sustainable energy.
- In calculation models, we price financial risks, such as carbon prices and declining coal revenues. For example, our investors closely monitor the cost of battery technology and the relative cost of energy sources (the so-called Levelized Cost of Electricity).
- APG actively engages in dialogue with companies to reduce their carbon emissions. One of the ways we do this is within the Climate Action 100+ partnership.

With the climate scenario analysis, we have taken steps to further integrate climate change into the so-called second-line risk management function. The stoplight model and dashboard with indicators are available for management teams and the risk management department. This second-line function will be further developed in the coming years.

⁽¹⁹⁾ Approximately 1% of the countries could not be classified by portfolio value. The analysis of government bonds gives a low-medium-high risk per country. This analysis is based on datasets and methodology of ND-GAIN (physical) and HSBC (transition).

4. What indicators and targets do we use to assess and manage climate-related risks and opportunities?

- We follow a set of 20 indicators to gain insight into the speed of the transition. For example: demand for oil and gas, investments in renewable energy, and number of electric cars.
- We measure the carbon footprint of the equity and real estate portfolios. For the listed equity portfolio, our pension fund clients have set targets for carbon reduction.
- We measure how much we invest in renewable energy. Our biggest pension fund client, ABP, has a target for investments in renewable energy.
- We measure what sources our energy-related investments use to generate energy (coal, oil, gas, nuclear and renewable).
- We measure how much we invest in companies that contribute to the Sustainable Development Investments (SDIs). Two of our pension fund clients have targets for investments in SDIs.

Appendix 2: Abbreviations

ANET ABP Netherlands Energy Transition fund; fund set up in 2018, specifically for investments in relatively

small projects and companies focusing on innovative solutions to the climate problem

AODP Asset Owner Disclosure Project; organization that determines how large asset owners identify the

impact of climate change

APG AM APG Asset Management; APG's asset management company

CHRB Corporate Human Rights Benchmark; benchmark established in 2017, comparing approximately 100

companies on their human rights policies

CRREM Carbon Risk Real Estate Monitor

ESG Environmental, Social and Governance; issues taken into account in responsible investing

ETF Exchange traded fund; basket of investments traded on the stock exchange, like shares

GISD Global Investors for Sustainable Development

GRESB Global Real Estate Sustainability Benchmark; organization set up by APG, in collaboration with other

parties, which compares the sustainability performance of real estate funds

GRIG Global Responsible Investment and Governance Team; APG experts on sustainability and good

corporate governance

IMVB Internationaal Maatschappelijk Verantwoord Beleggen - International Socially Responsible Investment

OECD Organization for Economic Cooperation and Development

PRI Principles for Responsible Investing; worldwide association of some 2,300 pension funds, asset

managers and companies that seek to promote responsible investing

SDG Sustainable Development Goal; development goal set by the United Nations to make the world a more

sustainable place by 2030

SDI Sustainable Development Investment; an investment that is attractive from a financial perspective and

contributes to achieving the Sustainable Development Goals

TCFD Task Force on Climate-related Financial Disclosures; working group led by Michael Bloomberg, who

published a report in 2017 on how companies and funds, among others, can best report on climate

change

UNGC United Nations Global Compact; a United Nations initiative to encourage businesses to adopt

sustainable and responsible business practices

VBDO Vereniging van Beleggers voor Duurzame Ontwikkeling – Dutch Association of Investors for Sustainable

Development