

Balancing sustainability

Integrating sustainability risks into the
core processes of the financial sector

DeNederlandscheBank

EUROSYSTEM

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Summary

Climate change and the transition to a sustainable economy are associated with risks for the financial sector. Financial institutions must manage these risks appropriately as part of their sound and ethical operational management. In this report, De Nederlandsche Bank (DNB) therefore charts the extent to which sustainability risks are integrated into the core processes of Dutch financial institutions and identifies room for improvement.

While financial institutions are aware of sustainability risks, they still only incorporate them into their core processes to a limited extent.

It is important that financial institutions integrate sustainability risks into their strategy, governance, risk management and reporting in order to be able to manage these risks and to address them in a timely manner. A survey¹ we conducted among 61 pension funds, 37 insurers and 29 banks shows that financial institutions are taking steps to incorporate sustainability risks into their core processes. However, this is typically limited to climate-related risks, and further elaboration is needed in several respects. More specifically, three striking findings emerged from the survey.

Firstly, the survey shows that many financial institutions have not adequately embedded sustainability risks in their risk management cycle. One in five financial institutions explicitly

takes sustainability risks into account in its risk appetite. An adequate assessment of the acceptability of sustainability risks in light of an institution's own risk appetite can strengthen risk management. Slightly less than half of the financial institutions distinguish between physical and transition risks. Making this distinction increases the understanding of risks and we therefore recommended it to financial institutions that do not yet do this. The same applies to the use of concrete metrics and limits to measure sustainability risks. This makes it easier to monitor and measure the effectiveness of the mitigation measures.

Secondly, it is notable that financial institutions find it difficult to measure sustainability risks.

They cite the limited availability of consistent and reliable data as a major reason for this. Pension funds and insurers frequently use Environmental Social Governance (ESG) ratings. These ratings have limitations, but our impression is that the institutions are aware of this, judging by the comments they provided in the survey. Banks make less use of scenario analyses than insurers and pension funds. In their analyses, they focus more often on whether their loan portfolio is in line with the UN Paris Climate Agreement.

Thirdly, it is notable that reporting on sustainability risks could be improved. Whereas the majority of pension funds (80%) and banks (75%) state that they report (in part) in their annual reports on how they manage sustainability risks,

¹ This cross-sector survey investigated how climate-related, environmental and social risks (from here referred to as sustainability risks) are embedded in the core processes of Dutch pension funds, insurers and banks.

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only about 50% of insurers do so. Insurers in particular say they report less frequently externally on how sustainability risks are incorporated into governance and strategy.

Limited data availability should not be an obstacle for financial institutions to measure sustainability risks. The survey shows that limited data availability is holding back financial institutions from measuring the sustainability risks in their portfolios. Financial institutions, however, should not wait to measure sustainability risks until better data is available. Experience shows that measuring sustainability risks can promote the emergence of better data based on harmonised standards. While we do not prescribe a specific methodology, we encourage financial institutions to adopt an unambiguous and detailed approach to measuring, for example, the carbon footprint of their financing and investment and the risk of stranded assets in their portfolios. Within this context, the International Financial Reporting Standards (IFRS) Foundation recently announced the establishment of a Sustainability Standards Board, which seeks to transform a range of existing sustainability reporting initiatives into a harmonised global reporting standard.² In tandem with the ECB, we are committed to developing harmonised standards to improve data quality.³

Our calculations show that Dutch financial institutions finance at least⁴ 82 megatons (Mton) of carbon emissions worldwide. The transition to a carbon-neutral economy thus implies a material sustainability risk for financial institutions.

By comparison, the global carbon footprint financed by Dutch financial institutions corresponds to 45% of the carbon emissions of the Dutch economy in 2019. The largest contributors to the financed carbon footprint are pension funds (47 Mton) and banks (30 Mton). For pension funds, equity investments (38 Mton) account for practically the entire carbon footprint. In the case of banks, these are large corporate loans, which account for 25 Mton. At the COP26 climate summit a coalition of (inter)national financial institutions committed themselves to achieving net zero carbon emissions by 2050. They will report annually on their progress and financed carbon emissions.⁵

The risk of stranded assets in the portfolios of financial institutions will increase in the coming years. Based on the Paris Agreement Capital Transition Assessment (PACTA) tool, we determine where the carbon-intensive companies in the portfolios of financial institutions stand in terms of the transition path towards compliance with the UN Paris Climate Agreement. Our analysis shows that, in the years ahead, the activities of companies in the equity portfolios of pension funds and insurers will increasingly deviate from this transition path, resulting in growing transition risks. In addition,

² IFRS Foundation (2021) [\[link\]](#).

³ DNB (2021a) [\[link\]](#).

⁴ Due to limited data availability, the footprint cannot be exactly calculated. The carbon emissions financed by Dutch financial institutions are therefore likely to be higher than 82 Mton.

⁵ GFANZ (2021) [\[link\]](#).

the effectiveness of governments' climate policies determines the magnitude of transition risks in the future. A less effective climate policy leads to smaller transition risks in the near term, but results in greater physical risks. At the same time, a less effective climate policy requires more incisive government action in the future, resulting in greater transition risks.

While financial institutions must manage sustainability risks, we do not advocate excluding such risks. Financial institutions inevitably run risks in order to achieve results. In doing so, it is vital that they manage all material risks. For this reason, it is essential that institutions have insight into their exposures to sustainability risks, the timeframe in which these risks lead to financial risks, and how this contributes to their own overall risk profile and risk tolerance. While downsizing exposure may be appropriate in some cases, financial institutions also have other tools at their disposal to manage these risks. For example, they can encourage companies in which they invest to manage sustainability risks through engagement and qualitative credit standards.

The transition to a sustainable economy also provides the financial sector with opportunities. Financial institutions play an important role in financing the transition to a sustainable economy. Responsible investment and sustainable finance also make financial institutions less vulnerable to sustainability risks.

DNB supervises adequate management of sustainability risks by financial institutions.

They must have sound and ethical operational management,⁶ allowing them to understand and manage all material risks, which explicitly includes sustainability risks.⁷ Adequate risk management starts with embedding sustainability risks in the governance, strategy and the risk management cycle of financial institutions. Firstly, it is important that financial institutions determine to what extent sustainability risks are material to them and explicitly include these risks in their risk appetite. Even if they do not consider sustainability risks material, it is important that they substantiate this. Secondly, when identifying and assessing sustainability risks, it is desirable that they distinguish between physical and transition risks, formulate concrete metrics and limits and use forward-looking methods, such as scenario analyses, stress tests and alignment methods. It is important to manage identified sustainability risks in a targeted manner and to monitor the effectiveness of mitigation and, where possible, make it measurable. As with other material risks, a clear division of responsibilities and tasks and internal risk reports to support decision-making are essential for the management of sustainability risks. Finally, it is important that financial institutions – in line with relevant (European) regulations – report meaningful information and indicators on material sustainability risks.

⁶ See Section 3:17 of the Financial Supervision Act (*Wet financieel toezicht*).

⁷ This is in line with the requirements of the prudential supervisory frameworks of banks (Capital Requirements Directive and Capital Requirements Regulation), insurers (Solvency II) and pension funds (Institutions for Occupational Retirement Provision II).

DNB sees to it that financial institutions comply with the sustainable financing agreements to which they have committed. This is in line with the requirements for sound and ethical operational management. If financial institutions fail to comply with the agreements they have committed to, they may face reputational and liability risks. For example, a large number of Dutch financial institutions have committed to the Dutch Climate Agreement. Likewise, Dutch insurers and pension funds have signed the International Responsible Business Conduct convenants.

DNB assesses the management of sustainability risks in thematic examinations and the mandatory periodic risk assessments of financial institutions.⁸ For example, DNB has investigated the extent to which small and medium-sized banks meet the supervisory expectations published in the ECB guide on climate and environmental risks. For banks, DNB has previously provided guidance in a good practice document on how to integrate climate risks into their governance, risk management and reporting.⁹ For the second year in a row, DNB has also investigated how insurers are taking climate risks into account in their Own Risk and Solvency Assessment (ORSA), and urged them to make improvement where needed.¹⁰ DNB has previously described in a Q&A for insurers what it expects of them in terms of climate risk assessment.¹¹

Lastly, next year DNB will publish the results of a thematic examination into the management of ESG risks by pension funds in the form of good practices.

DNB is making sustainability risks an integral part of our regular supervision. In 2022 DNB will further define how it expects financial institutions to manage sustainability risks and consult the financial sector on this. We seek to align our expectations with the ECB's supervisory expectations for banks.¹² Based on thirteen supervisory expectations, the ECB explains what it expects from banks in terms of prudent management and transparent disclosure of climate and environmental risks within the current prudential rules. DNB will take the specific characteristics of Dutch financial institutions into account when formulating its supervisory expectations. In addition, DNB will integrate sustainability risks into the risk taxonomy of its supervisory methodology in order to be able to translate sustainability risks into existing prudential risk categories. In this way, the risks will be taken into account when periodically determining the risk profile of a financial institution. If there are increased risks as a result of sustainability risks, DNB may decide to deploy mitigating measures.

⁸ This concerns the Internal Capital Adequacy Assessment Process (ICAAP) for banks, the Own Risk and Solvency Assessment (ORSA) for insurers and the Own Risk Assessment (ORA) for pension funds.

⁹ DNB (2020a) [\[link\]](#).

¹⁰ DNB (2021b), available in Dutch [\[link\]](#).

¹¹ DNB (2021a) [\[link\]](#).

¹² ECB (2020) [\[link\]](#) applies to banks.



1 Introduction

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Sustainability risks for financial institutions will increase due to climate change and the transition to a sustainable economy. The sixth report by the Intergovernmental Panel on Climate Change (IPCC) shows that climate change is accelerating and the consequences are more disastrous than previously anticipated.¹³ The Global Assessment published by the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) in 2019 also shows that a large part of the world's original biodiversity has been lost.¹⁴ DNB has previously shown that floods can lead to higher claims for insurers and that water scarcity and biodiversity loss can increase risks for financial institutions through corporate loans and investments.¹⁵ In order to deal with the negative consequences of climate change and other sustainability challenges, targets are being agreed at the domestic and international level to facilitate the transition to a sustainable economy.¹⁶ However, this transition comes with risks for financial institutions as the companies to which they lend or in which they invest need to adapt to a sustainable world.

DNB supervises adequate management of sustainability risks by financial institutions.

Laws and regulations require that financial institutions understand and manage all material risks. This applies in full to sustainability risks as well. DNB has previously published good practices to provide guidance to banks on how to integrate climate risks into their governance, risk manage-

ment and reporting.¹⁷ In addition, DNB has described in a Q&A what it expects from insurers regarding the treatment of climate risks in their ORSA.¹⁸ For pension funds, DNB has published a sector letter providing practical examples for the implementation of a sustainable investment policy. Finally, in a fact sheet, DNB provided an explanation of the statutory requirements for pension funds for including sustainability risks in investment policy, risk management and reporting.

With this report, DNB charts to what extent sustainability risks are integrated into the core processes of Dutch financial institutions. Firstly, based on a survey, we determine whether and how Dutch pension funds, insurers and banks perceive that they integrate sustainability risks into their strategy, governance, risk management and reporting. Secondly, we calculate the carbon footprints of loan and investment portfolios and show to what extent investment portfolios are in line with the objectives of the UN Paris Climate Agreement.

¹³ See: IPCC (2021) [\[link\]](#).

¹⁴ IPBES (2019) [\[link\]](#).

¹⁵ See: DNB (2017) [\[link\]](#), DNB (2019a) [\[link\]](#) and DNB (2020c) [\[link\]](#), which focused on sustainability risks arising mainly from climate-related and environmental challenges.

¹⁶ See: EC (n.d.) [\[link\]](#).

¹⁷ See: DNB (2020a) [\[link\]](#).

¹⁸ See: DNB (2020b) [\[link\]](#).



2 Sustainability and the financial sector

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We describe the relationship between sustainability and financial institutions based on dependency and impact perspective. We also show how sustainability risks can lead to financial risks for financial institutions.

The relationship between financial institutions and sustainability is through dependency and impact.¹⁹

Firstly, financial institutions finance or invest in companies that depend on natural and social capital to produce their goods and services.²⁰ The availability of this capital may be threatened by, for example, climate change and environmental pollution. This leads to physical risks to which financial institutions are exposed through their investments and loans. Examples include droughts, floods or loss of animal pollination, which negatively affect agricultural production. Secondly, financial institutions can have both positive and negative impacts on sustainable development through their financing and investments.²¹ Both forms of impact come with risks. Financial institutions that invest in companies with a negative impact, for example

through pollution, face increased reputational risks. In addition, climate and environmental policies, technological developments or court rulings to limit damage to the climate and environment can lead to transition risks due to the risk of stranded assets.²² Although financing and investments with a positive impact on sustainability have a lower transition risk, financial institutions can still face reputational risks in the event of, for example, greenwashing²³ or if the expectations they raised are not met. Figure 1 illustrates the relationship between sustainability and financial institutions.

Physical risks and transition risks are interrelated.²⁴

To reduce physical risks, government policy action such as carbon pricing, is needed. The greater the actual or anticipated physical risks are, the more necessary and drastic these measures will have to be. These measures do come with transition risks. For example, measures aimed at reducing carbon emissions mitigate the physical risks of climate change, such as storms and floods, but also lead to transition risks, such as stranded assets. Conversely, delaying the transition leads to greater physical risks

¹⁹ See also: EC (2019) [\[link\]](#), OECD (2019) [\[link\]](#). The formulated relationship between financial institutions and sustainability and the associated distinction between physical and transition risks are common with regard to climate and environmental challenges. The framework might also be applied to the analysis of sustainability risks due to social challenges, but this warrants further investigation. The EC is expected to issue a report on social risk taxonomy (EC (2021a) [\[link\]](#)).

²⁰ According to the *Convention on Biological Diversity*, natural capital can be defined as the world's stocks of natural assets, which include geology, soil, air, water and all living things. It is from this Natural Capital that humans derive a wide range of services, often called ecosystem services, which make human life possible (CBD (n.d.) [\[link\]](#)). According to the World Bank, social capital refers to the internal social and cultural coherence of society, the norms and values that govern interactions among people and the institutions in which they are embedded (TWB (1998) [\[link\]](#)).

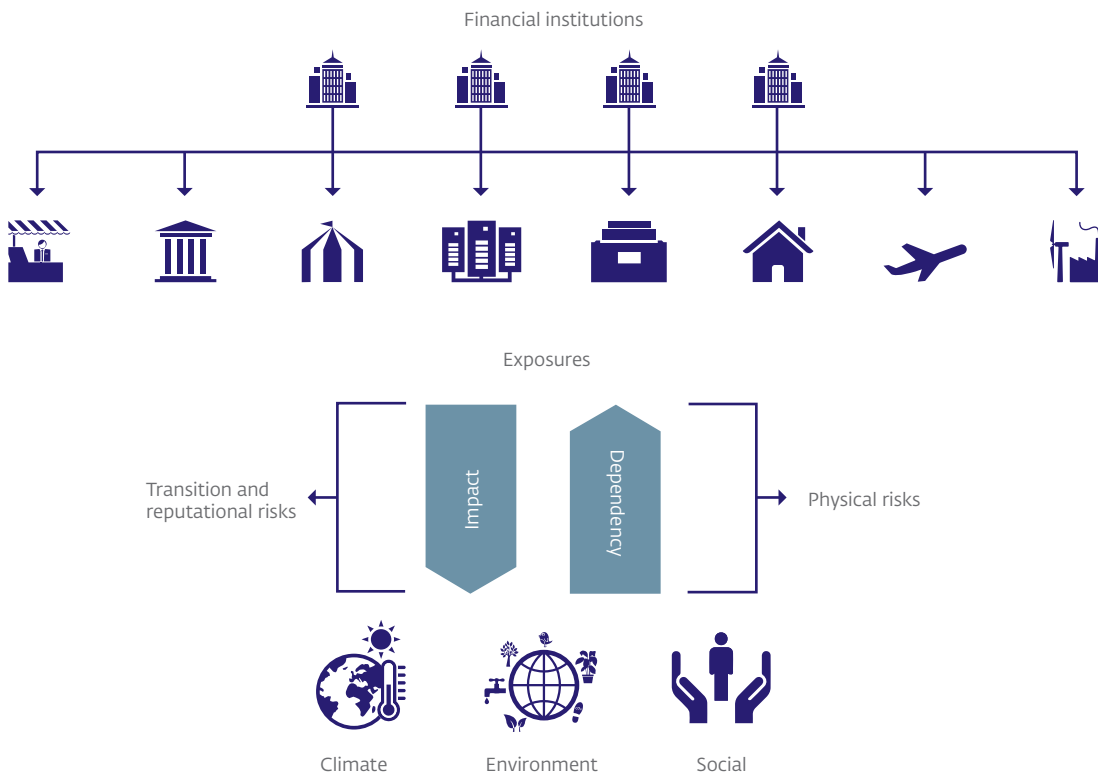
²¹ In practice, there is still no unambiguous and generally accepted definition of positive impact. According to the *United Nations Environment Programme Finance Initiative*, positive impact finance should serve to deliver a positive contribution to one or more of the three pillars of sustainable development (economic, environmental and social), once any potential negative impacts to any of the pillars have been duly identified and mitigated (UNEP FI (n.d.a) [\[link\]](#)).

²² Stranded assets are defined as assets that have suffered unexpected or premature depreciation, write-downs or conversion to liabilities as a result of, for example, new climate and environmental regulations.

²³ For example, Ehlers et al. (2020) find no clear evidence that green bond issuance has led to a reduction in carbon intensity at the company level.

²⁴ The relationship between physical and transition risks also takes centre stage in the ECB climate stress test, which assumes a negative relationship between the timeliness and completeness of policy action and the extent to which transition and physical risks materialise. See also: Table 2 of ECB (2021a) [\[link\]](#).

Figure 1 The relationship between financial institutions and sustainability is through dependency and impact



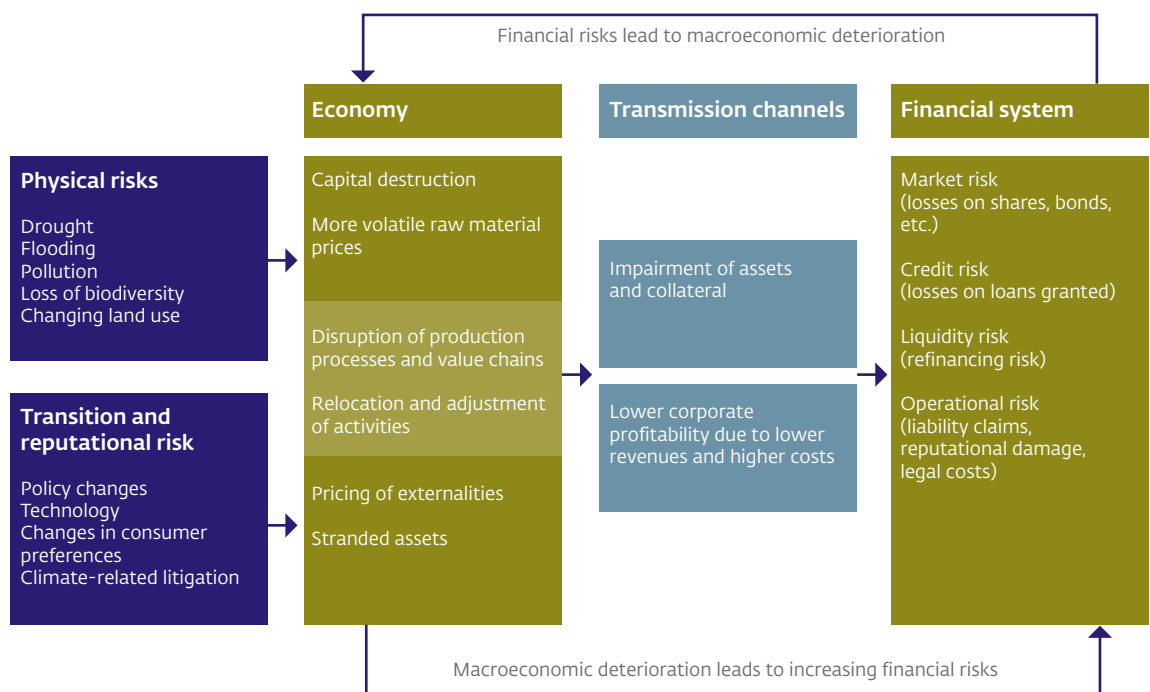
Source: DNB.

while limiting transition risks. The flip side, however, is that a less effective climate policy requires more incisive government action, resulting in greater future transition risks. In short, the effectiveness of governments' climate policies determines the extent of physical and transition risks. To illustrate: based on the Stated Policies Scenario²⁵, a transition scenario in which the International Energy Agency

included only government measures whose implementation is highly certain in the years ahead, the earth's temperature rise will be 2.6°C by 2100.²⁶ These measures are insufficient to meet the climate target of the UN Paris Climate Agreement. Accordingly, a more abrupt transition that involves more radical measures to still achieve the climate target cannot be ruled out.

²⁵ See: IEA (2021a) [link].
²⁶ See: IEA (2021b) [link].

14 Figure 2 From sustainability risks to financial risks



Source: DNB.

Physical and transition risks translate into and can increase existing financial risks.²⁷ Physical risks may result in lower revenues and/or higher costs for a company to which financing has been provided. This may result in a reduction of the company's enterprise value and a deterioration of its ability to generate profits and repay debts. A transition – abrupt or otherwise – can cause the value of financing and investments that have a negative impact on sustainable development to fall. For financial

institutions, these physical and transition risks translate into market and credit risks. For example, the flood stress test we recently conducted shows that, in an extreme flood scenario, banks may face significantly higher credit risks due to damage to houses and buildings. This can significantly erode their capital position.²⁸ Financial institutions may also face liability claims as a result of financing and investment activities that are associated with, for example, deforestation or human rights violations.

²⁷ The BIS (2021) [\[link\]](#) concludes that existing financial risks can be used to identify climate risks. The BIS notes, however, that existing analyses do not generally translate changes in climate-related variables into changes in banks' credit, market, liquidity or operational risk exposures or bank balance sheet losses. Instead, the focus is on how specific climate risk drivers can impact narrowly defined sectors of particular economies or individual markets.

²⁸ DNB (2021c), available in Dutch [\[link\]](#).

Substantial credit, market and operational risks can also make it more difficult for financial institutions to obtain refinancing in the short term (liquidity risks). Lastly, financial institutions may experience what are termed second-order effects, as increased financial risks may, in turn, depress economic conditions. The extent to which physical and transition risks lead to financial risks depends, among other things, on the mitigating measures taken by the institution, the degree of concentration in its portfolios and the transition path.²⁹ Figure 2 illustrates the relationship between sustainability and financial risks.

While financial institutions must manage sustainability risks, we do not advocate excluding such risks. Financial institutions inevitably run risks in order to achieve results. That said, it is vital that they manage all material risks. For this reason, it is essential that institutions have insight into their exposures to sustainability risks, the timeframe in which these risks lead to financial risks, and how this contributes to their own overall risk profile. While downsizing exposure may be appropriate in some cases, financial institutions also have other tools at their disposal to manage these risks. For example, they can encourage companies in which they invest to manage sustainability risks through engagement and qualitative credit standards.

Financial institutions endorse the importance of making a positive contribution to sustainable development. The financial sector can have a positive impact on sustainable development by, for example, excluding certain activities, attaching specific conditions to financing or by means of engagement. A large number of Dutch financial institutions signed up to the Dutch Climate Agreement in 2019. Under the aegis of the United Nations Environment Programme Finance Initiative (UNEP FI), Dutch banks have committed themselves to the Principles for Responsible Banking in order to make a positive contribution with their services and products to sustainability objectives, including those formulated in the Sustainable Development Goals (SDGs).³⁰ Dutch insurers and pension funds have signed the International Responsible Business Conduct covenants, under which they seek to make a positive contribution to the environment and human rights through their investments.³¹ The contribution to sustainable development seems to have a positive impact on trust in financial institutions (see box 1).

²⁹ ECB & ESRB (2021) [\[link\]](#).

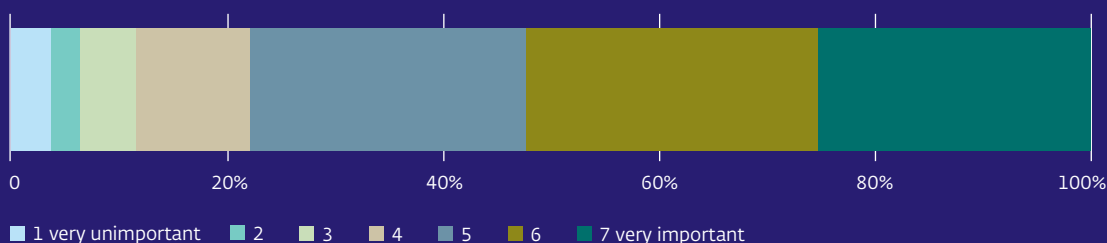
³⁰ UNEP FI (n.d.a.) [\[link\]](#).

³¹ IMVO (n.d.a.) [\[link\]](#) and IMVO (n.d.a.) [\[link\]](#).

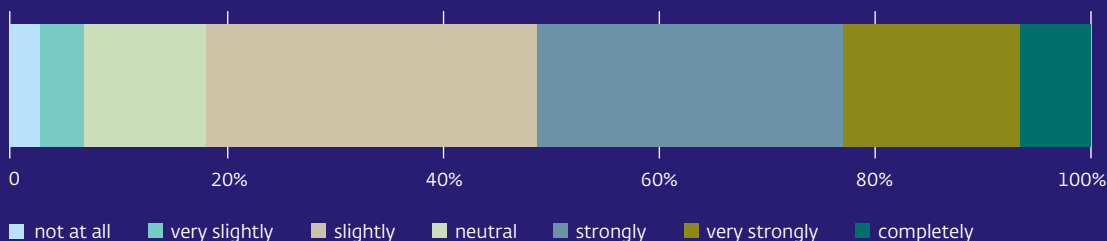
Box 1 Trust and sustainability

The DNB Trust Survey 2021 shows that trust in financial institutions is influenced by the extent to which they contribute to a sustainable society. Nearly 80% of the more than 2,500 respondents consider it more or less important that their pension and savings funds are put to work to counteract climate change or social inequality (see Figure 3a). In addition, 51% of respondents' trust in their bank declines sharply to completely if it provides financing that contributes negatively to sustainability (see Figure 3b). This is an increase from the 44% found in 2020. Only 18% of the respondents say their confidence is affected to a very limited extent or not at all affected by their bank's choice of financing in the area of sustainability. In 2020, this figure stood at 24%.

Figure 3a and 3b Trust in financial institutions influenced by their contribution to a sustainable society



To what extent do you believe it is important that your pension assets are invested in ways that contribute to a sustainable society, for example by countering climate change and social inequality?



To what extent would your trust in your bank(s) decline if they invest in firms or projects that are bad for sustainability, for example affecting the climate or social equality?

Source: DNB Trust Survey 2021.



3 Integrating sustainability risks into the core processes of the financial sector

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DNB supervises adequate management of all material risks by financial institutions, including sustainability risks (see box 2). Based on the results of a cross-sectoral survey, we provide insight into the extent to which financial institutions integrate sustainability risks into their core processes. These core processes are strategy, governance, risk management and reporting. The survey results suggest that integration is typically limited to climate-related risks and requires further elaboration in several respects.

Based on a survey, we provide insight into how Dutch financial institutions embed sustainability risks in their core processes. In this cross-sector survey, we have defined sustainability risks as climate-related, environmental and social risks. We have also briefly addressed the question of how financial institutions generate positive impact on sustainability. The survey was completed by 61 pension funds, 37 insurers and 29 banks, collectively representing 95% of the total balance sheet value of the Dutch financial sector. For banks, we have used the results of the ECB self-assessment.³² The survey results reflect the financial sector's own views.

Box 2 Sustainability risks in prudential supervisory frameworks

Banks: Although sustainability risks are not yet explicitly mentioned in the current Capital Requirements Directive (CRD) and the Capital Requirements Regulation (CRR),³³ integrating these risks into banks' risk management is in line with this legislation. The ECB has published a guide setting out its supervisory expectations on how to address climate-related and environmental risks in banks' strategy, governance, risk management and reporting.³⁴ In addition to this prudential framework for banks, the European Banking Authority (EBA) has published various guidelines in which the articles in the CRD and CRR relevant to sustainability are specified in more detail.³⁵ The European Commission (EC) has also adopted the proposal to set clear requirements in the CRD/CRR on how sustainability risks should be integrated into the risk management framework of banks.³⁶

³² While the ECB self-assessment exercise focuses on climate-related and environmental risks, our survey also looks at social risks. This means that, in the case of banks, sustainability risks relate mainly to climate-related and environmental risks.

³³ See Articles 73, 74(1), 74(2), 76(1), 79, 83(1), 85, and 91 of the CRD and Articles 431(3), 432(1), 453(2)(c), 437 and 450 of the CRR.

³⁴ ECB (2020a) [\[link\]](#).

³⁵ EBA has issued a report on how to integrate sustainability risks into the regulatory and supervisory framework for credit institutions and investment firms (EBA (2021) [\[link\]](#)). For an overview of the relevant EBA guidelines, see ECB (2020a) [\[link\]](#).

³⁶ See: EC (2021a) [\[link\]](#) and EC (2021b) [\[link\]](#).

Pension funds: In early 2019, the Institutions for Occupational Retirement Provision (IORP) II Directive was implemented in the Dutch Pensions Act (*Pensioenwet*). As a result, pension funds are obliged to include risks relating to the environment and climate, human rights and social relations (ESG risks) in their risk management framework and their own risk assessment.³⁷ In addition, pursuant to the prudent person rule, pension funds must invest their assets in the interests of beneficiaries and pensioners.³⁸ Finally, pension funds must state in their annual report how they take ESG risks into account in their investment policy.

Insurers: The European supervisory framework Solvency II prescribes that an insurer's ORSA must be forward-looking. It must also address risks to which the insurer is or might be exposed, taking into account potential changes in its risk profile due to business operations or financial and economic conditions.³⁹ The EC recently introduced changes to consistently integrate sustainability risks into Solvency II.⁴⁰ The European Insurance and Occupational Pensions Authority (EIOPA) has published an opinion on the treatment of climate risks in the ORSA.⁴¹ Finally, EIOPA is examining the insurability of protection gaps caused by climate change, and how climate risks (e.g. underwriting risk due to damage caused by natural disasters) can be included in the calculation of capital requirements.⁴²

Sustainability plays a limited role in the strategy of financial institutions. Half of the pension funds, 27% of the insurers and a limited number of banks (7%) say they include sustainability in their strategy.⁴³ In most cases, scenario analyses are used to determine the consequences of climate risks for (parts of) investment portfolios of pension funds and insurers and loan portfolios of banks. Among banks (21%), such scenario analyses are significantly less common than among pension funds (77%) and insurers (51%). In addition, large financial institutions

in particular use concrete indicators.⁴⁴ In the vast majority of cases, these are climate-related indicators, such as carbon reductions at portfolio level or, in the case of banks, the average energy label for mortgage loans originated.

Pension funds have embedded sustainability risks more firmly in their governance than insurers and banks. While half of the pension funds allocate the responsibility for sustainability risks to key functions – the risk management function, internal audit and

³⁷ See Section 143 of the Pensions Act, Section 138 of the Mandatory Occupational Pension Scheme Act (*Wet verplichte beroepspensioenregeling*) and Section 18 of the Pension Fund (Financial Assessment Framework) Decree (*Besluit financieel toetsingskader pensioenen*).

³⁸ See Section 135 of the Pensions Act. The European Insurance and Occupational Pensions Authority (EIOPA) will, at the request of the EC, assess whether the prudent person rule needs to be clarified and examine how integrating impact into investment decisions can be made mandatory (EC (2021a) [link]).

³⁹ See Article 262 of the Delegated Solvency II Regulation. Guideline 5 of the framework also states that insurer should evidence and document each ORSA.

⁴⁰ See: Delegated Regulation (EU) 2021/1256 [link]. The amendments will take effect on 2 August 2022.

⁴¹ EIOPA (2021a) [link].

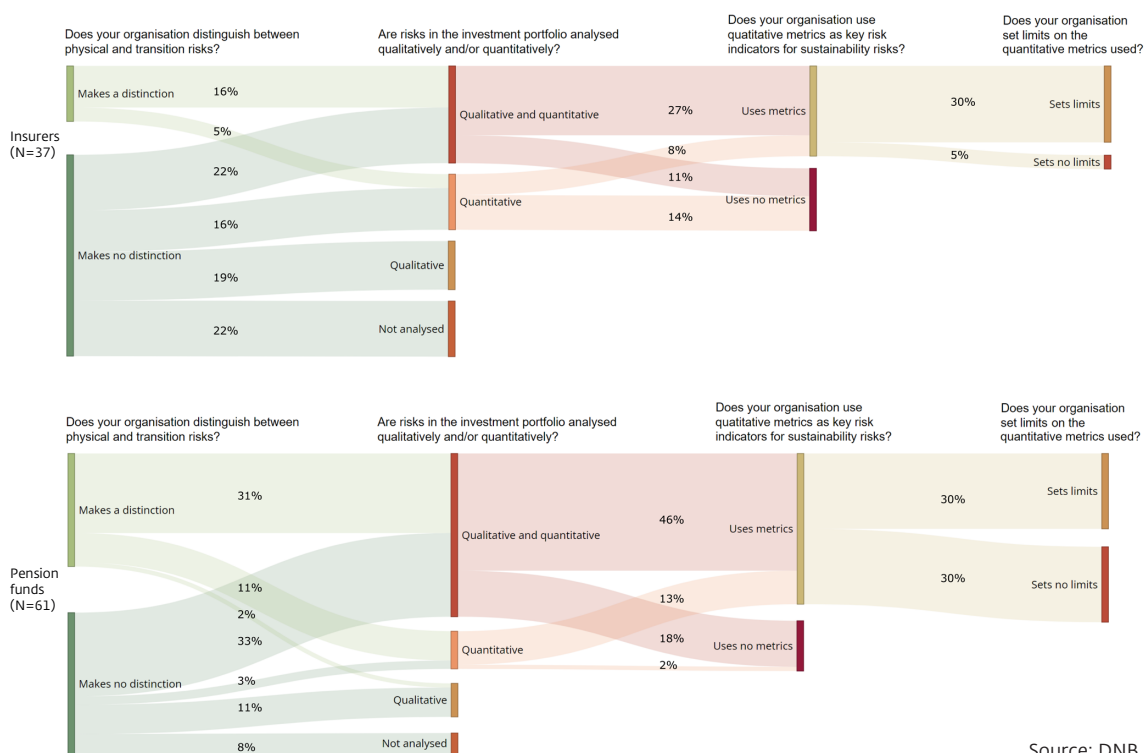
⁴² EIOPA (2021b) [link].

⁴³ The percentages presented in this chapter refer to responses from institutions that were answered with 'mostly' or 'yes', unless stated otherwise.

⁴⁴ Large financial institutions are financial institutions classified in impact class 3 according to our supervisory methodology [link].

Figure 4 The quality of insurers' and pension funds' sustainability risk assessments offers room for improvement

(% of total number of insurers and pension funds surveyed)



Source: DNB.

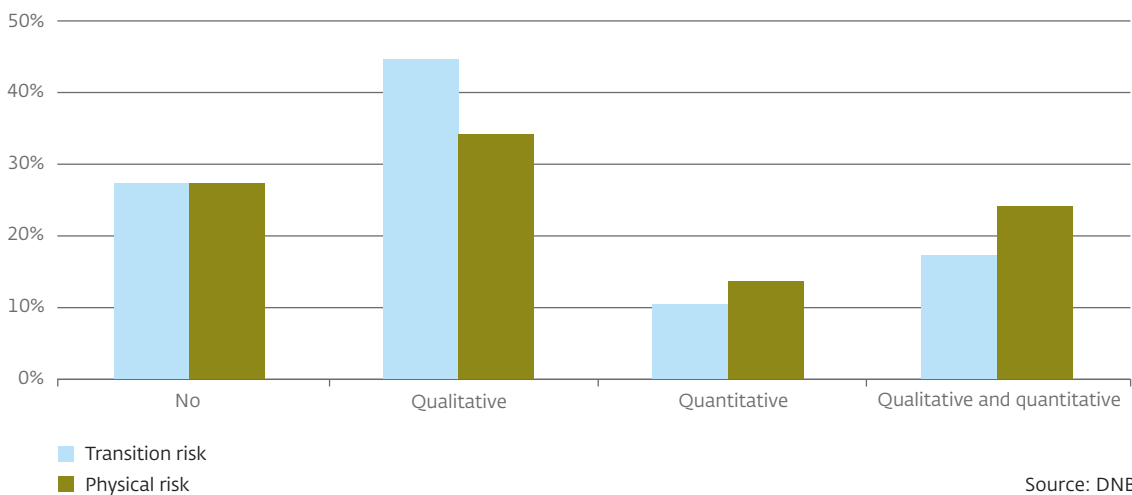
actuarial function – insurers (14%) and banks (21%) do so less often. Some banks have placed sustainability risks with a non-risk management function. However, almost all financial institutions place the responsibility for sustainability policy at board level. Informed management decisions on sustainability risks require internal reporting with key risk indicators (KRIs) on those risks. Over a third of the pension funds say they have such a reporting mechanism in place in some form or another. The corresponding figures for insurers and banks are

14% and 17% respectively. It is often larger pension funds and insurers that indicate that they have internal reports available.

A large majority of pension funds (92%) and insurers (78%) assess the exposure of their investments to sustainability risks, but the depth of these analyses offers room for improvement.

A minority of pension funds (30%) and insurers (22%) say they explicitly include sustainability risks in their risk appetite. Doing so is important to be able to

Figure 5 Banks take climate-related and environmental risks into account in the materiality analysis, mainly in a qualitative way



assess the acceptability of sustainability risks, given the institution's own risk appetite. In addition, 44% of the pension funds and 21% of the insurers indicate they distinguish between physical and transition risks in their assessment (see figure 4). Lastly, three out of five pension funds and insurers say they assess sustainability risks in quantitative terms. Translating sustainability risks into a financial impact and defining relevant risk metrics are still under development. For example, one third of the insurers indicate they use quantitative risk metrics.

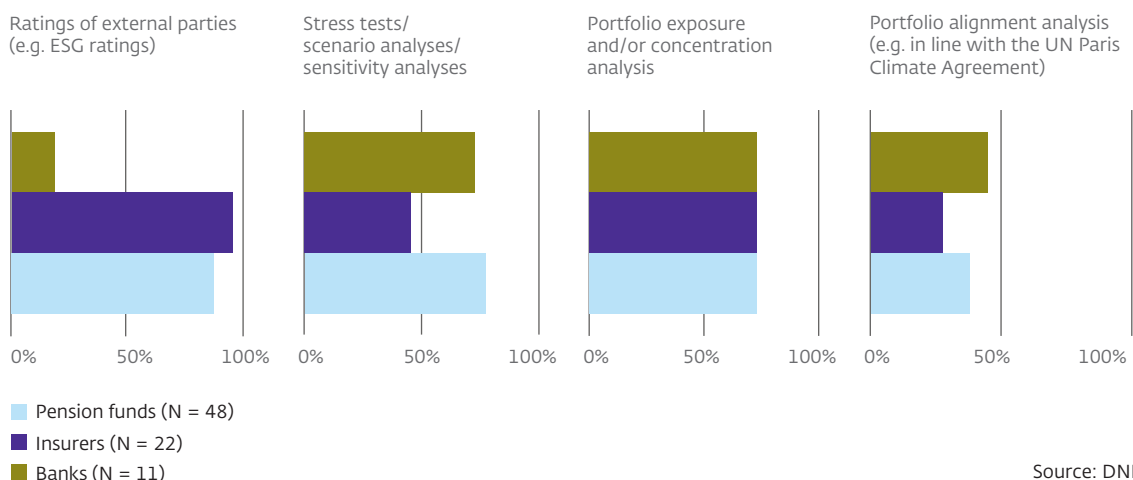
A majority of the banks say they are aware of the relevance of sustainability risks, but they have not yet fully incorporated them into their risk assessments. Over 60% of the banks indicate they have processes and methods in place to identify and analyse sustainability risks. These are mostly medium-sized banks. However, these processes and

methods differ in their degree of maturity.

As examples, banks cite the use of heat maps and the calculation of the carbon footprint of loans, and say these risks are part of their credit risk policy. At roughly one third of banks, these processes and methods cover at least three quarters of the balance sheet. About three out of five banks do not analyse physical and transition risks or only analyse them in qualitative terms (see figure 5). Five of the 29 banks use KRIs to measure exposure to transition risks, but none do so for physical risks.

Almost all pension funds and insurers that quantitatively assess sustainability risks use ESG ratings from external data providers (see figure 6). This means they take into account factors such as energy consumption, availability of natural resources, health, safety and good corporate governance account when selecting their investments in

Figure 6 Pension funds and insurers mainly use ESG ratings to analyse sustainability risks in quantitative terms



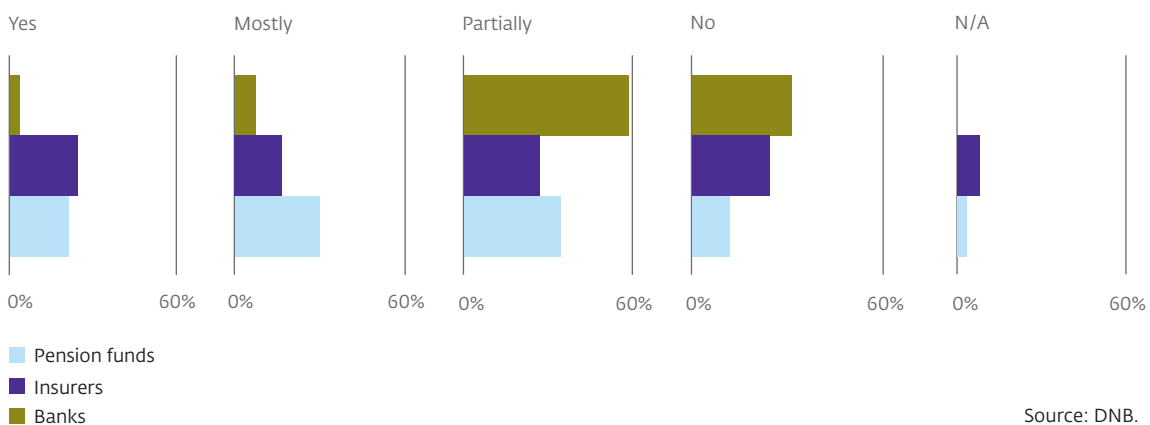
companies. ESG ratings are a generic term and scores vary widely in quality and usefulness.⁴⁵ For example, ESG ratings for the same company vary due to differences in the selection of sustainability risks and differences in standards to measure sustainability risks.⁴⁶ The survey responses show that insurers and pension funds are generally aware of the differences in the quality and usefulness of ESG ratings. Finally, a quarter of insurers and half of banks that carry out quantitative analyses say they assess the extent to which their portfolios are in line with the targets set in the UN Paris Climate Agreement.

Financial institutions take sustainability risks into account to a limited extent when managing existing financial risk categories. The survey shows that financial institutions consider sustainability risks as a source of existing financial risks. At the same time, one bank and one in five insurers and pension funds state they integrate sustainability risks into credit and market risk management respectively (see figure 7). Integrating sustainability risks in risk management is all the more important since the vast majority of pension funds and almost half of insurers and banks consider sustainability risks to be financially material for (part of) their investment and loan portfolios respectively. For other risks, such as liquidity, interest rate and

45 In its revised Sustainable Finance Strategy, the EC has announced plans to improve the availability, reliability and comparability of ESG ratings (EC (2021a) [\[link\]](#)).

46 See also: Berg et al. (2020).

Figure 7 Extent of integration of sustainability risks in credit risk (banks) and market risk (insurers and pension funds)



underwriting risk,⁴⁷ financial institutions indicate that integration is even more limited.

Sustainability risks are mainly managed prior to an investment or lending decision. The survey shows that the vast majority of pension funds choose to exclude investments in certain counterparties on the basis of sustainability criteria (93%) or to analyse a potential investment on the basis of, for example, ESG risks (90%). This may lead them to reconsider specific investment decisions. For example, a number of pension funds have recently announced they are withdrawing from investments in fossil fuels.⁴⁸ A similar percentage of insurers say they exclude specific investments. Banks mainly consider sustainability risks prior to their credit decisions.

For example, 45% of the banks take sustainability risks into account when adopting their sector credit policy and when performing customer due diligence. A limited number of banks (21%) classify loans on the basis of sustainability risks or differentiate interest rates. The picture of Dutch banks is comparable to the picture that the ECB paints of European banks in its recent supervisory review.⁴⁹ For pension funds, insurers and banks alike, their size does not appear to play a role in whether or not they apply the previously mentioned mitigation measures.

There is room for improvement when it comes to external reporting on sustainability risks. Four out of five pension funds indicate they report (in part) on their approach to managing sustainability risks,

47 Underwriting risk is the risk of receiving a claim under an insurance policy.

48 See: Pensioenfonds Horeca & Catering (2021), available in Dutch [\[link\]](#), PME (2021) [\[link\]](#) and ABP (2021) [\[link\]](#).

49 See: ECB (2021b) [\[link\]](#).

for example in annual reports. This is the case for three quarters of the banks⁵⁰ and about half of the insurers, including all large institutions. According to the European Union's Non-Financial Reporting Directive (NFRD), large corporations, including banks and insurers, must disclose information on how they deal with, among other things, sustainability risks arising from environmental and social issues.⁵¹ For pension funds, the Pensions Act requires them to state in their management report how their investment policy takes account of the environment and climate, human rights and social relations.⁵² With the introduction of the Sustainable Finance Disclosure Regulation (SFDR) in the financial services sector, financial market participants and financial advisers are required to provide information on how they integrate sustainability risks into their activities and on adverse impacts of their actions on sustainability.⁵³

Financial institutions say they aim to make a positive impact on sustainable development mainly through engagement. This is the case for just over half of pension funds, 40% of banks and a third of insurers. They focus in particular on reducing air pollution (including carbon emissions) and biodiversity loss (including deforestation), while they also cite social challenges in terms of access to public services and poverty. Most financial institutions indicate that they do not use metrics for measuring the effectiveness of their engagement or that they assess its effectiveness in qualitative terms. When quantitative metrics are used, reduction in carbon emissions is mentioned relatively often. More than half of the financial institutions say they publicly disclose (part of) their data on financing and investments that have a positive impact.

⁵⁰ See: ECB (2020b) [\[link\]](#). Under the current prudential framework, banks are required to disclose information on climate-related and environmental risks to the extent that this information meets the criteria set out in Articles 431 to 451 of Part Eight of the CRR. In addition to the information listed in Part Eight of the CRR, banks are required to disclose other information considered material for providing insight into their risk profile.

⁵¹ Non-Financial Reporting Directive (NFRD, Directive 2014/95/EU) concerns companies with over 500 employees. The European Commission is in the process of revising the NFRD, which will be replaced by the Corporate Sustainability Reporting Directive (CSRD). The aims of this revision are to 1) tighten the existing rules by bringing sustainability reporting in line with financial reporting in the longer term and 2) simplify the reporting process for companies. The revised NFRD is expected to apply to all listed and large corporations.

⁵² See: Section 135 of the Pensions Act.

⁵³ Regulation (EU) 2019/2088. The Regulation covers, for example, asset management firms, some insurance products, pension products, investment firms and banks (asset management). The four dimensions of the Task Force on Climate-related Financial Disclosure (TCFD) can serve as a standard for operationalising disclosure.



4 The financial sector's carbon footprint

The transition to a carbon-neutral economy leads to transition risks. The survey shows that financial institutions find it difficult to measure these risks, mainly due to limited data availability. This chapter uses the carbon footprint of financial institutions' assets to illustrate their exposure to transition risks due to climate change. We map the financed carbon footprints of banks, pension funds and insurers for each asset class.

Dutch financial institutions endorse the need for a substantial reduction in carbon emissions.⁵⁴ In the Dutch Climate Agreement, it was agreed to almost halve carbon emissions by 2030 compared to 1990. By 2050, carbon emissions must be reduced by 95%.⁵⁵ This is the Dutch contribution to the UN Paris Climate Agreement, in which it has been agreed to limit global warming to well below 2°C in 2100, and to 1.5°C if possible. A large part of the Dutch financial sector has committed itself to actively contribute to the implementation of the Dutch Climate

Agreement.⁵⁶ The signatories of the commitment will report on the climate impact of their relevant financing and investments. The financial sector has undertaken to submit plans to reduce financed carbon emissions by 2022.⁵⁷

The exposure of Dutch financial institutions to carbon-intensive activities may lead to increased credit and market risks due to the transition to a carbon-neutral economy.⁵⁸ Tightening climate policy⁵⁹, the introduction of carbon-neutral technologies and changing consumer preferences can lead to a decline in the value of commercial real estate and homes with relatively high energy consumption.⁶⁰ Similarly, they can cause profitability to decline and the probability of bankruptcy⁶¹ to increase for companies in carbon-intensive sectors.⁶² This in turn has a negative impact on the valuation of the shares and bonds of these companies, as well as on the credit ratings of their loans.⁶³ For example, the first signs of transition risks being priced in on financial markets have meanwhile appeared⁶⁴ and three US gas and oil companies

54 In this report carbon emissions are taken to mean CO₂ equivalents. One unit of CH₄ and N₂O is multiplied by 25 and 298 respectively to give the equivalent carbon emissions. Carbon emissions do not include emissions from biomass.

55 See: Climate Agreement (2019), available in Dutch [\[link\]](#).

56 See: Financial Sector Climate Commitment (n.d.) [\[link\]](#)

57 See: KPMG (2021), available in Dutch [\[link\]](#).

58 To identify credit and market risks, scenario analyses and stress tests are performed in particular. The extent to which these losses will materialise in the future depends in part on how the transition will take shape. Also see: BIS (2021) [\[link\]](#).

59 By 1 January 2023, every office building in the Netherlands must have at least energy label C (RVO (2021) [\[link\]](#)). In addition, in its *Fit for 55 package*, the EC presents policy proposals to strengthen the European Emissions Trading Scheme and to apply it to new sectors (EC (2021c) [\[link\]](#)).

60 In a forthcoming study, DNB shows the extent to which the real estate positions in the Dutch financial sector are vulnerable to transition risks under various climate policy scenarios.

61 Capasso et al. (2020) show that large emitters have a higher probability of bankruptcy. At the same time, this higher risk of bankruptcy also results in higher returns in stock markets (see: Bolton & Kacperczyk (2021)).

62 The ECB (2021a) [\[link\]](#) shows that a gradual transition has a smaller adverse impact on profitability and a smaller probability of bankruptcy for companies in the medium to long term than an abrupt transition. However, the introduction of carbon pricing means the negative impact on profitability and the risk of bankruptcy are greater for large emitters in the short term than for other companies in a gradual transition.

63 Reinders et al. (2020), DNB (2018b) [\[link\]](#).

64 Stock markets show a decline in the price-to-book ratios of polluting companies.

recently had their credit ratings downgraded.⁶⁵ The extent of the transition risk depends in part on the effectiveness of climate policy and on whether or not the transition proceeds in an orderly fashion. The scope and timing of mitigating actions by financial institutions also play an important role.

Climate-related litigation is potentially a new source of risk for financial institutions. Globally, the number of climate-related court cases is increasing.⁶⁶ Firstly, financial institutions may face financial risks if companies in their loans and investment portfolios are held liable for their adverse climate impact. Secondly, it cannot be ruled out that financial institutions themselves will be held liable for financing carbon-intensive activities or the termination thereof. Should their liability actually be established, this will obviously entail risks for financial institutions.

A relatively large financed carbon footprint of a financial institution indicates a relatively high transition risk. We determine the exposure of the Dutch financial sector to carbon-emitting activities by using the carbon footprint of the assets of financial institutions. For example, for residential mortgages, equities, corporate bonds and corporate

loans, we attribute carbon emissions to the financial institution in proportion to the part of the activity it finances.⁶⁷ For shares, corporate bonds and corporate loans, we calculate this ratio by dividing the exposure of financial institutions by the enterprise value of the company in question. For residential mortgages, we compare the mortgage amount with the value of the home. Ideally, we would like to determine the financed carbon emissions for all assets and all counterparties, but this is not yet possible. Firstly, because carbon emission data are unavailable for some assets, such as foreign real estate finance⁶⁸ and counterparties such as small and medium-sized enterprises. Secondly, because the relationship between carbon emissions and the transition risk is unclear for certain assets, such as sovereign bonds.

The globally financed carbon footprint⁶⁹ of Dutch financial institutions is at least 82 Mton. By comparison, this corresponds to 45% of the CO₂ equivalent emissions of the Dutch economy in 2019.⁷⁰ As the carbon footprint per asset class cannot be fully calculated due to limited data availability, these 82 Mton can be interpreted as a lower bound of the total footprint. Based on the available data,

65 See: Bloomberg (2021) [link]. Research shows that highly rated corporate bonds of firms with a greater focus on sustainability carry lower risk premiums, while no difference is found for bonds issued by firms with lower credit ratings (see: Höck et al. (2020)).

66 See: NGFS (2021) [link]. The majority of climate-related court cases are filed against governments.

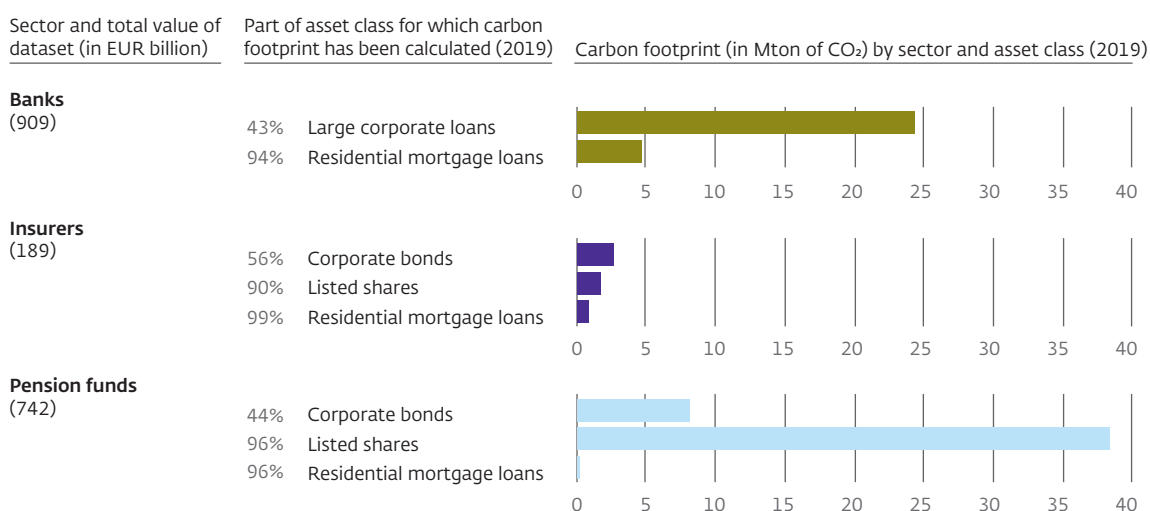
67 This approach was developed in PCAF (2020) [link].

68 Despite the fact that carbon emissions data are unavailable for real estate finance, energy performance coefficients are usually available to estimate the carbon emissions.

69 We have included scope 1 and scope 2 in our calculation. Scope 1: A company's direct emissions, e.g. in the production process. Scope 2: A company's indirect emissions through its use of energy, e.g., the emissions released in generating the electricity it uses in its production process. Scope 3: A company's indirect emissions that are released in the supply and disposal chain of the company concerned, e.g., emissions released during the production of inputs for its production process, commuting of its employees and energy consumption of a shop selling its products (GHG (2011)).

70 See: CBS (2020) [link]. The comparison with the Netherlands' carbon emissions is intended as an illustration of the order of magnitude of the emissions. It does not imply that Dutch financial institutions are responsible for 45% of Dutch carbon emissions, as they also finance foreign activities.

Figure 8 Equity investments of pension funds account for the largest contribution to the financed carbon footprint of financial institutions



Sources: Bloomberg, MSCI, Refinitiv, DNB.

more than half of the financed carbon footprint is accounted for by pension funds (47 Mton). This is followed by banks with a carbon footprint of 30 Mton. For pension funds, equity investments (38 Mton) (see figure 8) account for practically the entire carbon footprint. In the case of banks, these are large corporate loans⁷¹, which account for 25 Mton.⁷²

For a more accurate estimate of the transition risk, more complete carbon emissions data of higher quality are required. For the vast majority of equity investments and residential mortgages it is

possible to establish a carbon footprint of financial institutions for scope 1 and 2. The situation is different for corporate bonds and corporate loans, because the issuers and debtors involved are mostly unlisted, smaller companies for which limited carbon emissions data are available. Moreover, to obtain a complete picture of the transition risk that a financial institution runs, it is also desirable to include scope 3 emissions.⁷³ In order to obtain more complete and reliable carbon emissions data, it is important that companies report on emissions in an uniform manner.

⁷¹ This concerns exposures to counterparties that in aggregate exceed EUR 300 million or 10% of a bank's capital.

⁷² Note that the coverage for loans is significantly lower than for listed equities.

⁷³ Most of the carbon emissions data available to date concern scope 1 and 2. There may be differences in quality between data providers, which is why, in our calculations, we use a tiered selection method, first using reported corporate data before using estimates from data providers. For further details, please refer to our forthcoming methodology document.



5 Looking ahead

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The survey shows that financial institutions are still making limited use of forward-looking methods to measure transition risks. Based on an alignment analysis, we show that the activities of companies in the investment portfolios of pension funds and insurers, increasingly deviate from the transition path required to achieve international climate goals. This deviation indicates the increasing risk of stranded assets in their portfolios.

The extent to which the activities of companies in the portfolios of financial institutions deviate from the transition path towards meeting climate targets is a proxy for the transition risks that financial institutions will be facing in the future. To meet the goals of the UN Paris Climate Agreement, carbon emissions, in particular those of carbon-intensive sectors, must be reduced. Using the Paris Agreement Capital Transition Assessment (PACTA) tool⁷⁴, we determine where the carbon-intensive companies in the portfolios of financial institutions stand in terms of the transition path towards compliance with the UN Paris Climate Agreement.⁷⁵ We do so by looking at the activities of companies – for example the oil production of oil producers – in which pension funds and insurers invest. We subsequently compare the current and

expected physical production, such as the number of barrels extracted from an oil field, with the physical production implied by the transition path. We then attribute the physical production and transition path of companies in which the relevant Dutch financial institution invests to this financial institution in proportion to its shareholding. In this way, we show where the companies financed by the Dutch financial sector will be in the next five years in relation to the transition path.

We analyse investments in companies in eight economic sectors. They are power generation, oil, gas and coal extraction, automotive, steel and cement production and aviation. Figure 9 shows the exposure to these sectors in the portfolios of pension funds and insurers. Together, these sectors account for the vast majority of global carbon emissions.⁷⁶

Low-carbon technologies are available for the power, automotive and fossil fuels sectors. Therefore, the transition scenario prescribes a shift to low-carbon production in these sectors. For power generation, this means transitioning from coal and oil to, for example, renewable energy sources. For car manufacturers, the share of combustion engine cars must decrease in favour of electric and hybrid cars.

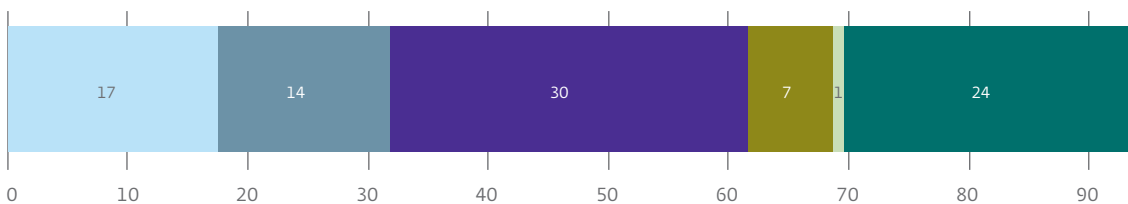
⁷⁴ PACTA is an open source tool developed by the 2^o Investment Initiative. This is an independent not-for-profit organisation (2020) [link].

⁷⁵ More methods are possible. Financial institutions are free to choose which method they use.

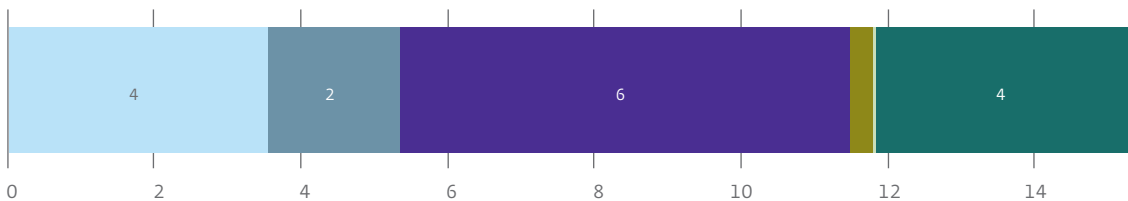
⁷⁶ PACTA assumes that these sectors are collectively responsible for three quarters of global carbon emissions.

Figure 9 Exposure (equity and bonds) of pension funds (top) and insurers (bottom) to PACTA sectors

Exposure of pension funds (in EUR billions)



Exposure of insurers (in EUR billions)



■ Automotive
■ Cement and steel
■ Power
■ Coal
■ Aviation
■ Oil and gas

Source: DNB.

For aviation, the steel and cement industries, we use carbon intensity⁷⁷ because decarbonisation pathways are not so well defined yet. Emission intensity equals the carbon emission per output unit of steel or cement. Current and future expected emission intensities of the assets in the portfolio of Dutch financial institutions are compared to the required emission intensity under the transition path.⁷⁸

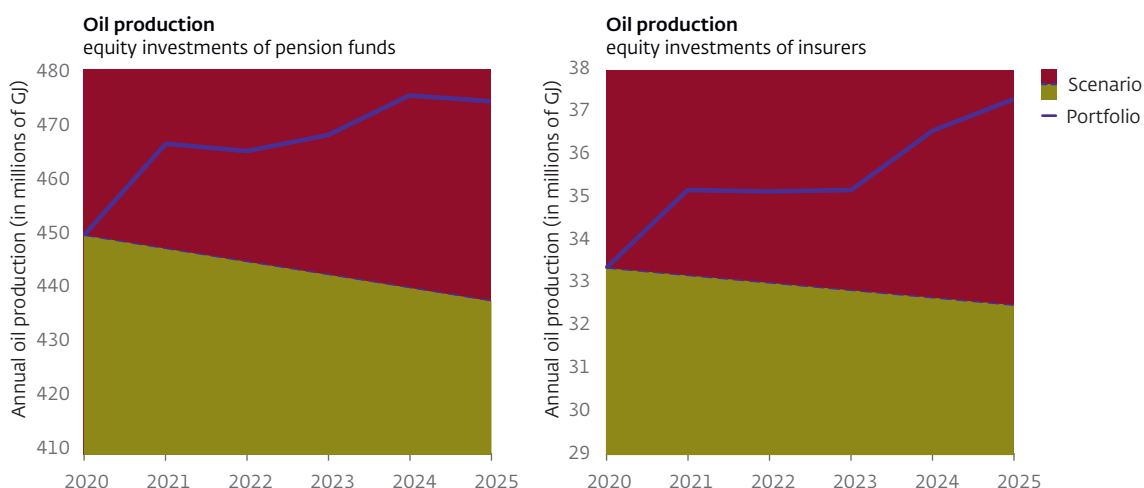
The greater the distance between carbon-intensive business activities in which financial institutions invest and the transition path, the greater the transition risks are. As the transition path we use the Sustainable Development Scenario (SDS), in which there is a 50% probability that the Earth's temperature will have risen by 1.65°C by 2100 and a 66% probability that the increase will be limited to 1.8°C.⁷⁹

⁷⁷ Emission intensity is preferably calculated on the basis of a plant's actual emissions. If these are unknown, it is estimated from the plant's characteristics.

⁷⁸ For analysis outcomes with respect to the steel and cement industries and aviation please refer to our forthcoming methodology document. The investments in these sectors are a small proportion of the total portfolios of insurers and pension funds.

⁷⁹ Data for the automotive sector is unavailable for a 50% probability of 1.65°C temperature increase. We use the scenario with a 50% probability of a 2°C global temperatures rise.

Figures 10a and 10b Equity investments of pension funds and insurers in oil-producing companies. These companies do not (yet) operate in line with the transition scenario*



* The solid line represents actual or projected production of portfolio companies, while the dotted line represents the production path needed to limit global warming to 1.65°C by 2100 (Sustainable Development Scenario). If the solid line is in the red or the green section, this indicates misalignment or alignment with the transition scenario, respectively.

Sources: Asset Resolution, PACTA, DNB.

For the investments of pension funds and insurers in carbon-intensive companies, the transition risk will increase significantly in the coming years.⁸⁰

The PACTA analysis provides insight into the extent to which the companies in the portfolio of financial institutions operate in line with the transition scenario. As an example, in Figure 10a we plotted for pension funds' equity investments in oil-producing companies, actual or projected production figures (the solid line) against the transition scenario to meet the UN Paris Climate Agreement (the dotted

line). The transition scenario shows a downward line as oil production must be scaled back to meet the UN Paris Climate Agreement. The starting point of both lines on the left of the y-axis is the share of pension funds in the oil producing companies multiplied by the total amount of energy that the oil production represents.⁸¹ If the solid line is above the dotted line and their mutual distance increases, the probability of stranded assets also increases. The figure shows that the oil producers in which Dutch pension funds invest will increasingly lag behind the

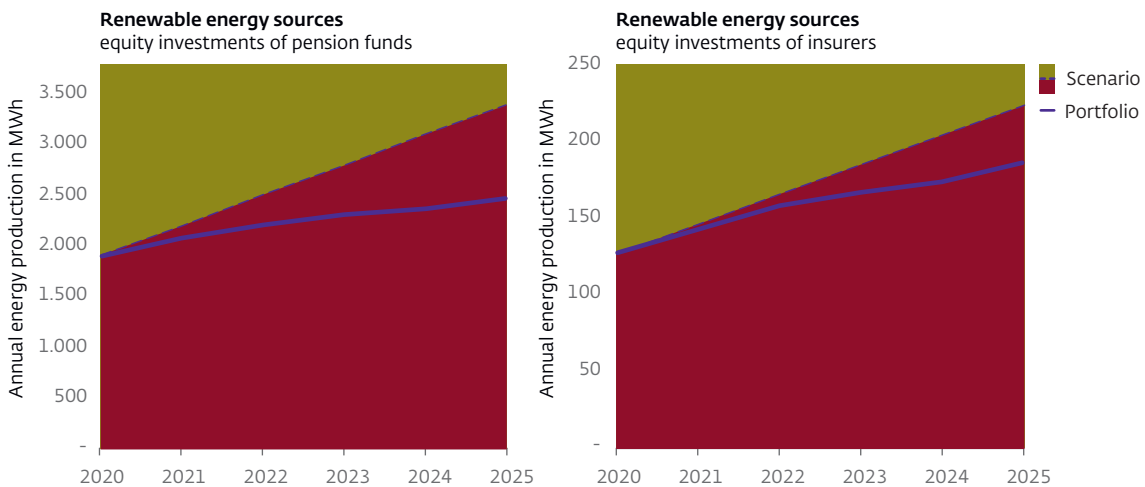
⁸⁰ This analysis does not include the impact of the recent decisions of the ABP, PME and Horeca & Catering pension funds to withdraw from fossil fuel investments.

⁸¹ We converted the number of barrels produced to the amount of energy (in gigajoules) released during the oil burning process.

transition scenario needed to comply with the UN Paris Climate Agreement. The Annex shows similar figures for other carbon-intensive business activities in the equity portfolios of pension funds and insurers (Figures 12a, 12c, 12e, 13a, 13c and 13e). These activities, just like oil production, must be reduced in the transition scenario in order to comply with the UN Paris Climate Agreement. These include coal production, the manufacturing of internal combustion vehicles and coal-based power generation. These figures also show the solid line above the transition path and a widening distance

between the solid and dotted lines over the coming years, thereby increasing the likelihood of stranded assets. The same is true of bond portfolios.⁸² This does not mean, however, that investment in these companies must necessarily be phased out. For example, by means of voting at shareholders' meetings and through engagement, shareholders can encourage companies to reduce their carbon-intensive activities and invest in low-carbon alternatives.

Figures 11a and 11b Equity investments of pension funds in companies generating renewable energy. These companies do not (yet) operate in line with the transition scenario*



* The solid line represents actual or projected production of portfolio companies, while the dotted line represents the production path needed to limit global warming to 1.65°C by 2100 (Sustainable Development Scenario). If the solid line is in the red or the green section, this indicates misalignment or alignment with the transition scenario, respectively.

Sources: Asset Resolution, PACTA, DNB.

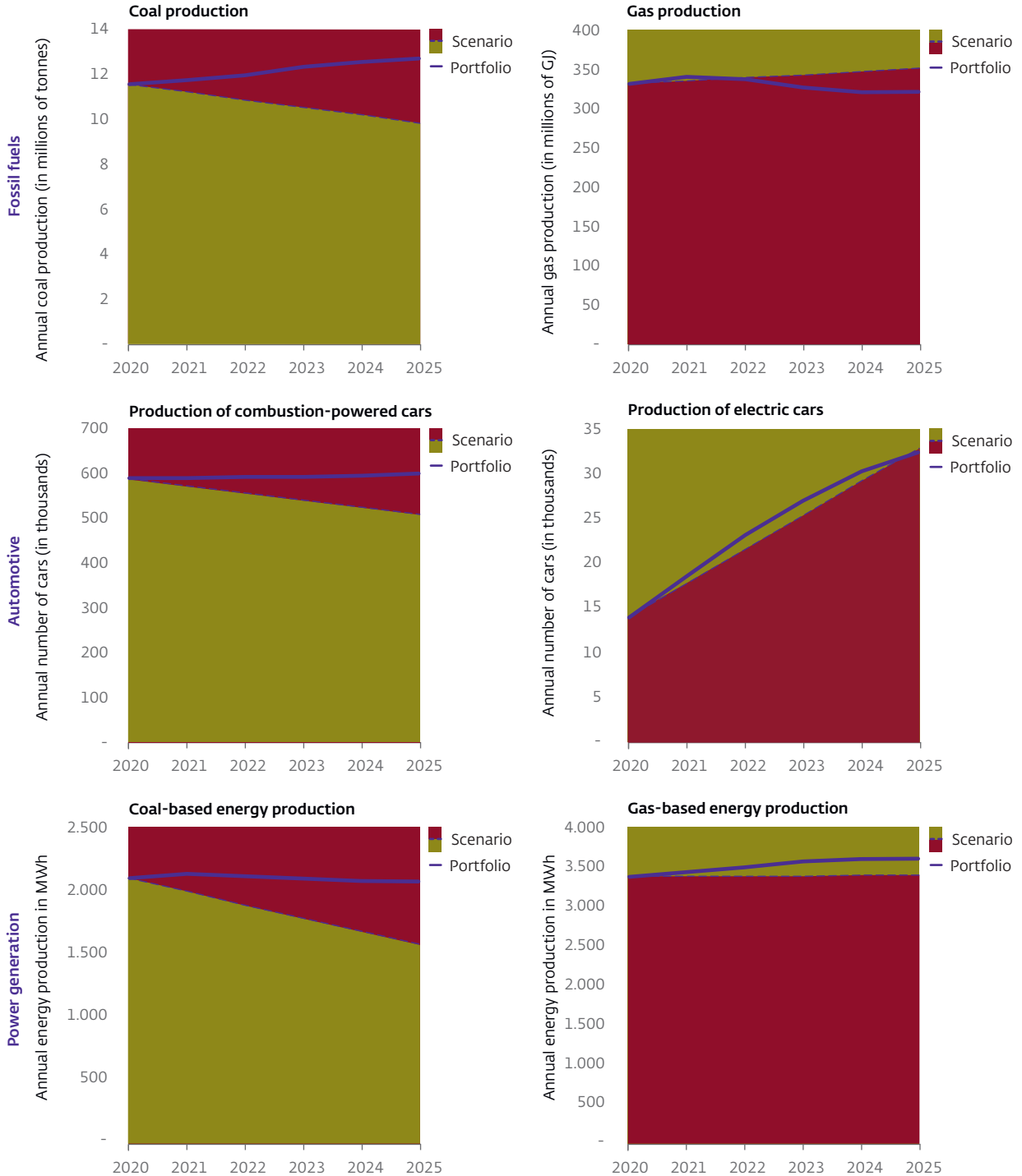
82 For the figures with respect to carbon-intensive activities in bond portfolios please refer to our forthcoming methodology document.

The low-carbon activities of companies in the equity portfolio of financial institutions are not increasing sufficiently to stay in line with the transition scenario. Figures 11a and 11b are the equivalents of Figures 10a and 10b, but for renewable energy generation. They show that the companies that generate renewable energy and are financed by pension funds and insurers are as yet lagging behind the transition scenario. In the figures, the solid line is below the dotted line. Moreover, the distance between the two lines is set to increase in the coming years. Similar figures are included in the Annex for equity investments in other sectors whose production must increase under the transition scenario in order to comply with the UN Paris Climate Agreement (Figures 12b, 12d, 12f, 13b, 13d and 13f). This includes, for example, the production of electric cars. Given that the solid line is below the dotted line in most figures, companies in which financial institutions have a shareholding will need to make additional investments to close the gap with the transition scenario. This same applies to the companies whose bonds are held by financial institutions.⁸³

⁸³ For the figures with respect to low-carbon activities in bond portfolios please refer to our forthcoming methodology document.

6 Annex

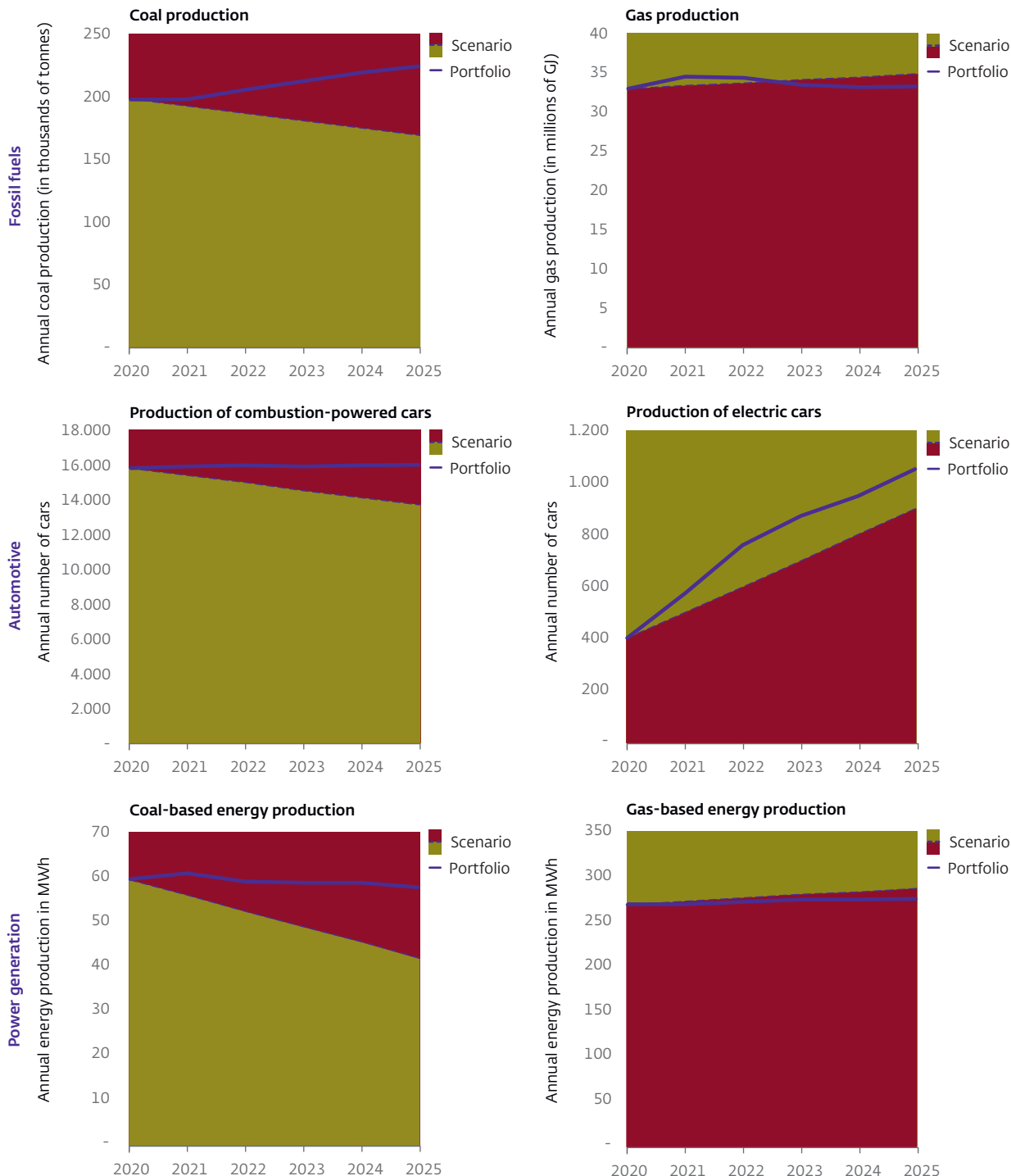
Figures 12a to 12f Equity investments by pension funds in most sectors are not in line with the transition scenario*



* The solid line represents actual or projected production of portfolio companies, while the dotted line represents the production path needed to limit global warming to 1.65°C by 2100 (Sustainable Development Scenario). For the automotive sector we use the scenario of a 2°C global temperatures rise due to limited data availability. If the solid line is in the red or the green section, this indicates misalignment or alignment with the transition scenario, respectively. Only the figures for conventional vehicles with internal combustion engines and electrically powered vehicles are shown. These currently account for 96% of financed manufacturing and 95% of the exposure to companies manufacturing conventional vehicles. The figures for hybrid vehicles and heavy vehicles will be included in our forthcoming methodology document. The figures presented in this report represent 70% of financed energy and 77% of pension fund exposures. The figures for energy generation from oil, nuclear and hydropower will also be presented in the same methodology document.

Figures 13a to 13f Equity investments by insurers in most sectors are not in line with the transition scenario*

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* The solid line represents actual or projected production of portfolio companies, while the dotted line represents the production path needed to limit global warming to 1.65°C by 2100 (Sustainable Development Scenario). For the automotive sector we use the scenario of a 2°C global temperatures rise due to limited data availability. If the solid line is in the red or the green section, this indicates misalignment or alignment with the transition scenario, respectively. Only the figures for conventional vehicles with internal combustion engines and electrically powered vehicles are shown. These currently account for 97% of financed manufacturing and 96% of the exposure to companies manufacturing conventional vehicles. The figures for hybrid vehicles and heavy vehicles will be included in our forthcoming methodology document. The figures presented in this report represent 66% of financed energy and 74% of insurers' exposures. The figures for energy generation from oil, nuclear and hydropower will also be presented in the same methodology document.

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Commission Delegated Regulation (EU) 2021/1256 of 21 April 2021 amending Delegated Regulation (EU) 2015/35 as regards the integration of sustainability risks in the governance of insurance and reinsurance undertakings (OJ 2021, L 277/15)

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