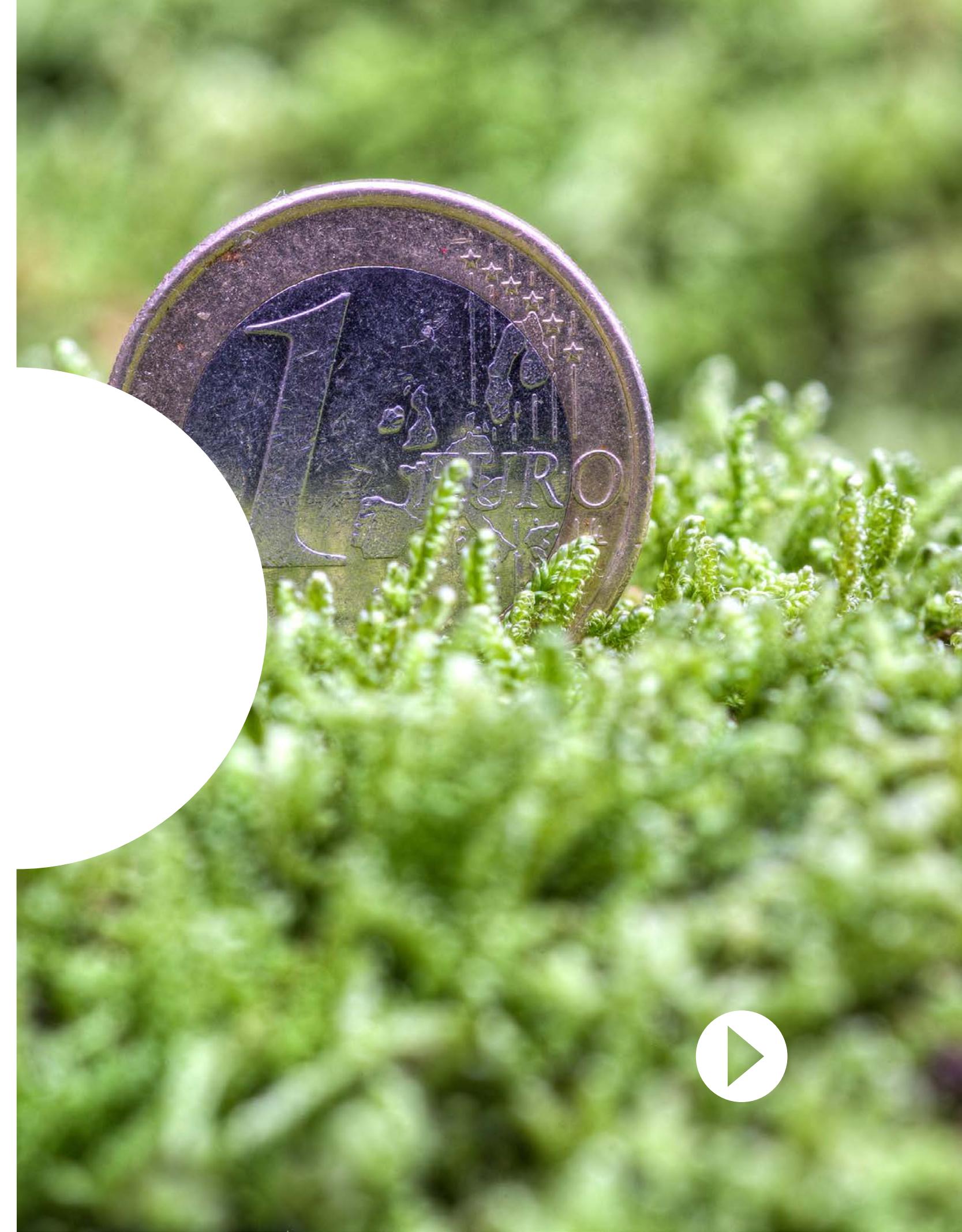


# FINANCE IN TRANSITION

TOWARDS AN ACTIVE  
ROLE FOR THE FINANCIAL  
SECTOR IN A SUSTAINABLE  
ECONOMY

DECEMBER 2022



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The Council for the Environment and Infrastructure (*Raad voor de leefomgeving en infrastructuur, Rli*) advises the Dutch government and Parliament on strategic issues concerning the sustainable development of the living and working environment. The Council is independent, and offers solicited and unsolicited advice on long-term issues of strategic importance to the Netherlands. Through its integrated approach and strategic advice, the Council strives to provide greater depth and breadth to the political and social debate, and to improve the quality of decision-making processes.

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# SUMMARY



The Netherlands is confronted with major challenges in the area of sustainability. Climate change, biodiversity loss and resource depletion are increasingly threatening the planet and will require us to adapt not only our living environment, but our economy too. New economic activities will have to be developed, while others are phased out or converted. This process of change, or the transition to a sustainable economy, will involve significant investment. Making sure sufficient finance is available is therefore essential, which means financial institutions, such as banks, pension funds, insurers and asset managers, are key players in the transition. This advisory report deals with the options open to the Dutch government to steer these financial institutions in such a way that they phase out funding for non-sustainable activities, better anticipate the transition to a sustainable economy and contribute more quickly to its realisation.

In an earlier advisory report in 2019 we identified the need for consistent government policies, formulated on the basis of a clear vision of the transition to a sustainable economy (Rli, 2019). We recommended that the government should adopt pricing and regulation measures to address the negative sustainability impacts of economic activities. In this advisory report too we recommend that the government take action, but now focusing on the financial sector. This action should complement rather than replace the measures we previously proposed, since the regulation and pricing of negative sustainability impacts are not sufficient on their

own to encourage the financial sector to act with the necessary urgency. The measures we propose in this advisory report aim to ensure that this happens and the financial sector plays its part in the transition to a sustainable economy as effectively as possible.

### **Plenty of money, but little sustainable finance**

Over the past decade, partly due to the stimulus policies adopted by central banks within the European Union (EU), a great deal of money was available on the financial markets. Financial institutions could thus lend money easily. Unfortunately, for various reasons, very little of this money found its way into sustainable economic activities. The supply of (high-)risk capital for innovations and the supply of long-term finance were inadequate. Partly because of this, sustainable economic activities struggled to get off the ground. If no action is taken, this situation is expected to deteriorate further over the coming years. After all, in 2022 the macroeconomic situation is changing rapidly. We are faced with a high level of inflation and rising interest rates. Our concern is that the mismatch between the supply of and demand for sustainable finance will grow. It is important to escape this downward spiral, as at present far too much finance still goes to companies whose activities are harmful to biodiversity or result in substantial particulate emissions, for example. The funding of these kinds of non-sustainable economic activities will have to be phased out during the transition period. Flows of funds from banks, pension funds, insurers and asset managers need to be redirected more quickly towards sustainable economic activities, such as wind turbine construction, the creation of a hydrogen transport infrastructure and renewable energy storage.

### **Barriers to sustainable finance**

We have identified four barriers within the financial sector that present an obstacle to cutting the funding of non-sustainable activities and promoting the necessary growth of sustainable finance.

First of all, despite the fact that increasing attention is being paid to sustainability, the vast majority of parties in the financial sector remain focused on short-term financial returns. This business model is problematic, as it does not provide a good insight into the risks that non-sustainable investments pose against the background of the future sustainable economy. Financial institutions often lack the necessary expertise and tools to assess the returns on sustainable investments. They use calculation models that are tailored to conventional business models and cannot cope with the cost/benefit dynamics of sustainable projects.

Secondly, the rules governing the financial sector, as well as the associated supervision, are not sufficiently geared towards sustainability.

Thirdly, government bonds are overrepresented in the portfolios of Dutch pension funds. As a result, opportunities remain unexploited, for example when it comes to long-term investments in renewable energy infrastructure and sustainable real estate. This is detrimental to the transition to a sustainable economy and, ultimately, also to pension plan participants, as such investments can help a pension maintain its value over time.



Fourthly, government funding and support for sustainable economic projects are fragmented. The Dutch government has set up many different organisations and funds to encourage innovation and sustainable activities. However, unlike Germany, France and Canada, for example, the Netherlands does not have a strong national investment institution that can act as a reliable partner for private parties seeking to develop or finance sustainable activities.

### **Additional government policies needed**

In recent years, initial steps have been taken within the financial sphere to move towards more sustainable finance. The financial sector is striving to provide transparency about its sustainability policies. Furthermore, the Minister of Finance, together with the Minister for Climate and Energy Policy, has published the Sustainable Finance Policy Agenda. These efforts are still not sufficient, however. We believe the government needs to play an even more active role. To this end, we are making four recommendations to the Dutch government:

- 1. Embed sustainable development in the business model of financial institutions.* The steps we advocate include adapting the calculation models used by financial institutions and broadening the scope of their reporting on their sustainability policies. To date, such reports have mainly been limited to the level of CO<sub>2</sub> emissions.
- 2. Give sustainability greater prominence in financial sector rules and supervision.* We recommend stating explicitly that sustainability falls under the existing mandate of financial sector regulators. In addition, we advocate linking the capital requirements for financial institutions to

sustainability, structuring the bank tax with sustainability in mind and updating the 'Tante Agaath' ('Aunt Agatha') angel investor scheme<sup>1</sup> to encourage private investment in sustainable innovation.

- 3. Encourage sustainable investments within the new pension system.* We recommend using the overhaul of the pension system as an opportunity to ensure that pension funds opt for more sustainable investments, in energy infrastructure and sustainable real estate for example.
- 4. Create a fully-fledged national investment institution.* A National Investment Institution should be created to make more long-term funding available for sustainable economic projects, but also to direct the cooperation with private parties when it comes to scaling up the sustainability transition. Rather than creating a new organisation, we advocate combining and strengthening various existing institutions and instruments (Invest-NL and parts of the National Growth Fund and Climate Fund, for example, could form the basis for this institution).

<sup>1</sup> Under this scheme, which ran until 2011, start-ups could borrow money from someone they knew. The interest the investor received was tax-free up to a certain amount.



## barriers



Inconsistent government policies



Lack of regulation/pricing



Short-term returns dominate business model



Rules and supervision not geared towards sustainability



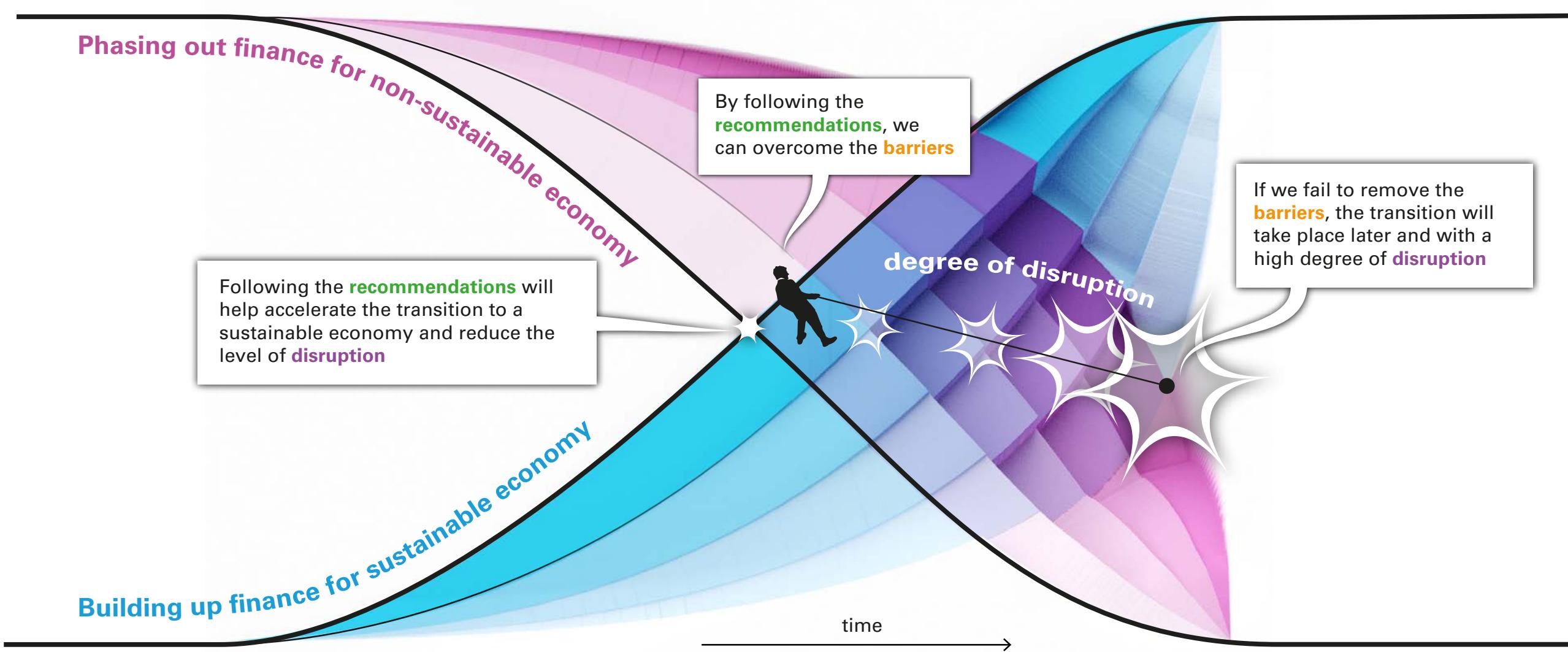
Overrepresentation of **government bonds** in pension fund portfolios



Fragmented government funding and project support

for the whole economy

for the financial sector



## recommendations



Coherent government policy



Regulation/pricing



Embed sustainable development in **business model**



Give sustainability greater prominence in **supervisory rules**



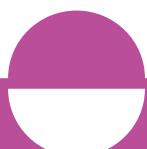
Encourage sustainable investments within the **new pension system**



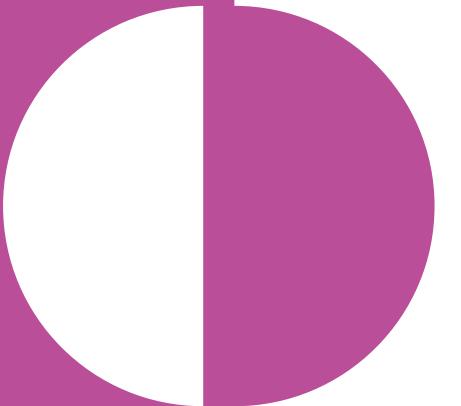
Create a fully-fledged national investment institution

for the whole economy

for the financial sector



## 1 INTRODUCTION



The Netherlands is confronted with a major challenge in the area of sustainability. As a result of climate change, declining biodiversity and increasing resource depletion, we need to make changes to our energy supply, mobility system and food system, for example. These unavoidable changes will have a profound impact not only on our physical living environment, but also on the structure of our economy: the way we work and the way we produce and consume. We therefore speak about a transition to a sustainable economy (Rli, 2019).

This transition will be associated with new economic activities. Sustainable agriculture and the production of green hydrogen using wind or solar energy will play a major role, for example. At the same time, other economic activities will have to be phased out or converted. Take fuel and fertiliser production, for example, processes that rely on polluting fossil resources (oil and natural gas), not to mention clothing and food production, activities with an adverse impact on natural resources such as water and soil.

To build up, phase out and convert economic activities, significant investment is needed. Financial institutions, such as banks, pension funds, insurers and asset managers, therefore have an important role to play in the transition to a sustainable economy (UNEP, 2022). In this advisory report we

examine how financial institutions are fulfilling this role. We also highlight what the Dutch government can and cannot do to steer these institutions, which often operate internationally, in the desired direction.

We are writing this advisory report against a background of substantial macroeconomic uncertainty. Partly as a result of Russia's invasion of Ukraine, the energy crisis and high inflation, the period during which money was in relatively plentiful supply at low (or even zero) interest rates has come to an end.<sup>2</sup> The near future is uncertain. With banks and investors reducing their risk appetite in the face of an impending recession, the availability of sufficient finance to facilitate the transition to a sustainable economy risks coming under further pressure.

## 1.1 Subject matter and question to be addressed

There is a real need for a coherent transition policy based on a clear vision of the economy of the future and the transition pathways that will take us there. In an earlier advisory report we called for such a policy to be developed (Rli, 2019). Within this context we referred to the pricing of non-sustainable activities as an important measure.<sup>3</sup> We also argued that regulation is unavoidable. In short, we need a government that takes the lead and creates a new playing field.

<sup>2</sup> Chapter 2 looks more closely at the current macroeconomic situation.

<sup>3</sup> The introduction of the European Carbon Border Adjustment Mechanism (CBAM) is an essential development in this regard.

During the transition period, however, it will not be possible to fully price or regulate all negative sustainability impacts. Further measures are therefore required.

Against this background, the central question addressed in this advisory report is:

*What options does the government have to steer financial institutions in such a way that they anticipate a sustainable economy and contribute to the transition towards it?*

The measures geared towards the financial sector that we advocate in this advisory report are not a substitute for other measures that we have previously recommended. This advisory report deals with additional (government) measures needed to ensure that the financial sector plays its part in the transition to a sustainable economy as effectively as possible.

One element of the transition to a sustainable economy is sustainable finance becoming the norm rather than the exception. 'Sustainable finance' generally refers to financing that takes into account:

- environmental and climate impacts (e.g. targeted funding of activities that combat resource depletion and CO<sub>2</sub> emissions);
- social aspects (e.g. targeted funding of activities that prevent poverty and promote social inclusion); and
- sustainability ambitions in corporate governance (e.g. targeted funding of organisations with accessible reporting on the sustainability policies they pursue).



In this advisory report we adopt a stricter definition of ‘sustainable finance’. We consider the financing of economic activities to be sustainable only if it contributes significantly and demonstrably to the United Nations (UN) Sustainable Development Goals.<sup>4</sup> These are 17 interrelated goals that countries worldwide are pursuing to achieve economic and social development that meets the needs of current generations without compromising the opportunities of future generations. The goals relate to eradicating poverty and fostering peace and security, economic progress and sustainability.<sup>5</sup> Within this context it is important that funding that contributes to one of the Sustainable Development Goals does not have a detrimental impact on the others.

In this advisory report we therefore place the emphasis on reducing funding for activities that are manifestly non-sustainable (such as fossil fuel production) and expanding funding for economic activities that are clearly sustainable in nature (such as developing a sustainable energy supply). For economic activities that can be both sustainable and non-sustainable (such as housing and agriculture), sustainable finance implies investing in these activities only when they are carried out sustainably.

We are aware that not all parts of the UN’s Sustainable Development Goals are concrete enough at present to be applied in practice in calculation models or auditable reporting within the financial sector. We therefore support the development of tools that promote the ‘measurability’ of sustainable activities, such as the taxonomy for sustainable activities<sup>6</sup> currently being developed within the EU.

In this advisory report we focus specifically on three groups of actors within the financial sphere:

- the financial institutions that together make up the financial sector, namely banks, pension funds, insurers and asset managers;
- the bodies supervising these financial institutions, namely De Nederlandsche Bank (as part of the Eurosystem<sup>7</sup>), the Netherlands Authority for the Financial Markets (AFM) and the Netherlands Authority for Consumers and Markets (ACM); and
- the Dutch government, in its capacity as both a policymaker and a ‘player on the market’ (e.g. as an investor through Invest-NL or as an insurer of exported capital goods through Atradius Dutch State Business).

<sup>4</sup> In some of our previous advisory reports we have used the phrase ‘broad welfare’ in this context. Given the international nature of the financial sector, we have now decided to align with the international terminology of the Sustainable Development Goals.

<sup>5</sup> See SDG Nederland. Accessed 21 November 2022 at <https://www.sdgnederland.nl/de-17-sdgs/>

<sup>6</sup> This EU taxonomy lists economic activities that qualify as sustainable investments. See also Chapter 3, Section 3.1.

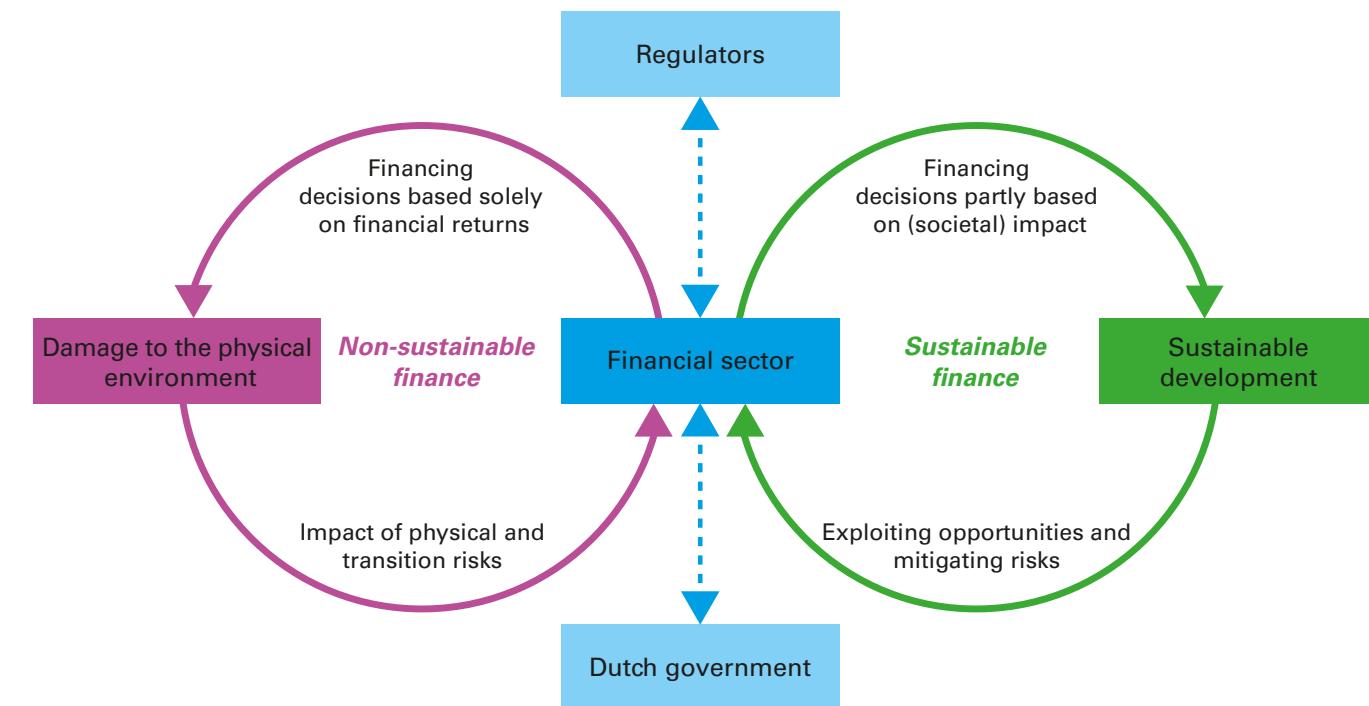
<sup>7</sup> The Eurosystem is the monetary authority of the euro area and comprises (a) the European Central Bank and (b) the national central banks of the EU Member States whose currency is the euro.



## 1.2 Links between the financial sector and sustainable development

The transition to a sustainable economy is of great importance for financial institutions.<sup>8</sup> After all, the consequences of sustainability issues can entail significant financial risks. If floods and droughts caused by climate change disrupt the agricultural chain, for example, insurers will face substantially more claims.<sup>9</sup> Banks may run into problems if fossil-energy-dependent companies that do not join the transition in time are unable to repay their loans on a large scale (Gourdel et al., 2022). At the same time, the new business models that need to be developed as part of the transition to a sustainable economy will give rise to opportunities, but also uncertainties and risks for financial institutions when it comes to lending.

Figure 1: Links between the financial sector and sustainable development



Source: Rli

Figure 1 shows that financial institutions can influence the transition to a sustainable economy both positively and negatively. They can contribute to sustainable development by offering finance to companies in the circular economy or those fighting income inequality or promoting access to healthcare and education, for example. However, financial institutions can also contribute to the degradation of the (physical) environment, for example by offering finance to companies that damage biodiversity or have substantial particulate emissions. To facilitate the transition to a sustainable

8 According to DNB's 'Financial Stability Overview', climate change and energy-market turmoil pose a major risk to financial stability in the Netherlands and Europe (DNB, 2022a).

9 Which physical risks are insurable is the subject of debate. For example, the breach of a primary flood defence system (near the sea or a major river) is not currently insurable, as the potential damage is so great that insurers cannot bear the risk. As climate change (including sea level rise) continues and physical risks arise more frequently, this issue will become increasingly important.

economy, the flows of funds from the financial sector will need to be redirected from ‘non-sustainable’ (left side of the figure) to ‘sustainable’ (right side of the figure).<sup>10</sup>

### 1.3 Scope: focus on Dutch government

Financial institutions (banks, insurers, pension funds and asset managers) operate on an international playing field. Money can literally be moved from one side of the world to the other in milliseconds. Many of the laws and regulations governing the financial sector are therefore developed at international level. For this advisory report, however, we have deliberately chosen to adopt a Dutch perspective. That is because, in our opinion, even though the financial sector forms part of an international network, the Dutch government has various levers that it can pull to guide the sector’s actions more towards improving the sustainability of our national economy. We have identified three areas in which direction can be provided by the national government:

- Firstly, the Dutch government can play a guiding role in shaping EU financial sector policy. In this way it can help ensure that attention is paid to sustainability in the goals of the relevant European directives and regulations.

- Secondly, through targeted policies, the Dutch government can attract funding to develop sectors that are a good fit with the future sustainable economy in our country.
- Thirdly, Dutch pension funds hold about half of the total pension assets available within the EU. This means that Dutch policies aimed at making pension fund investments more sustainable also carry weight in a European context.<sup>11</sup> Moreover, pension funds are subject to national regulation and supervision. The Netherlands can therefore set conditions for pension funds that are specifically tailored to the national context in which social partners and pension plan participants operate.

Adopting national policies for sectors with a high degree of international interdependence is not without controversy. There is a risk that the government could undermine companies’ international competitiveness if stricter rules apply inside than outside the Netherlands. There would then no longer be a ‘level playing field’. For example, if the Dutch government were to impose conditions on the financial sector that constrained the financing of non-sustainable economic activities, there is a risk that financial flows would shift to countries where such conditions do not apply. Conversely, national policies that promote sustainable finance can create a competitive advantage, with sustainable financial flows finding their way to the Netherlands more easily.

<sup>10</sup> In the past, the financial sector has acted as a catalyst in transitions and major technological breakthroughs. Within this context the strength of the financial sector has always been to turn expectations for the future into financial incentives in the present. It is important to harness this strength now to support the transition to a sustainable economy (Tilburg, 2016).

<sup>11</sup> Here we are not overlooking the need, in the interests of risk diversification and hedging, for internationally oriented investment portfolios. We discuss this in more detail in Chapter 2.



We have previously argued in general terms that the risks that national policies pose to companies' international competitiveness are sometimes exaggerated (Rli, 2019). In our view, taking national measures within an internationally oriented sector should not therefore be excluded from the outset. These measures need to be analysed on a case-by-case basis and the actual effects they produce (positive and/or negative) weighed up.

Moreover, if we really want to make the transition to a sustainable economy, we will have to take a different view of the 'level playing field'. The current playing field is in fact not really level in the first place, partly due to the existence of all kinds of (indirect) national subsidies. In addition, many aspects of our national laws and regulations are currently still geared towards the 'old' economy, such as rules stipulating that in some cases waste cannot be used as a raw material. Regulations such as these will have to be adapted in any case. The transition to a sustainable economy will therefore inevitably affect the 'level playing field'. In fact, the transition will actually require a complete change of playing field. A new balance will need to be found.

In Chapter 3 we describe the steps that financial institutions, financial sector regulators and the Dutch government have taken to date to promote a more sustainable economy.

In Chapter 4 we highlight four barriers that nevertheless still present an obstacle to the growth of sustainable finance.

In Chapter 5 we set out the conclusions of our analysis.

In Chapter 6 we make four concrete recommendations to the Dutch government, aimed at steering financial institutions more explicitly towards sustainable finance.

## 1.4 Structure of the report

The remainder of this report is structured as follows.

In Chapter 2 we discuss three factors that, over the past decade, have led to financial institutions allocating only a very limited proportion of the ample money at their disposal to sustainable finance.





## 2 STARTING SITUATION: PLENTY OF MONEY, BUT LITTLE SUSTAINABLE FINANCE

Roughly a decade ago we experienced a global financial crisis. To stimulate the economy, the European Central Bank launched a massive bond-buying programme to provide liquidity to the market, in combination with low or even negative interest rates.<sup>12</sup> Partly as a result of this, financial institutions were able to lend money easily.<sup>13</sup> Unfortunately, this available money was and continues to be used to a very limited extent only for sustainable finance (Polzin et al., 2017). In this chapter we discuss three factors that are relevant in this regard. All three are linked to a mismatch between supply and demand. At the end of the chapter we briefly reflect on the current changes in macroeconomic conditions and the impact they may have on the availability of sustainable finance.

<sup>12</sup> This bond-buying programme continued beyond 2020, against the background of the coronavirus pandemic.

<sup>13</sup> Historically low interest rates in recent years have allowed governments, companies and private homebuyers alike to borrow money cheaply. This situation came to an end in 2022 as a result of (a) the European Central Bank's (ECB) interest rate hikes and (b) the ECB's tapering of government-bond-buying programmes (DNB, 2022b; ECB, 2022a).

## Supply of and demand for finance

In this advisory report we look at the supply of and demand for finance. This covers not only lending, but also asset management and the (re)insurance of financial risks, such as storm and earthquake damage. The supply of and demand for these forms of finance come together on the financial markets. This happens in part on stock exchanges, where financial products can be traded freely. But it also happens in sectors where financial products that are not freely tradable are offered and purchased, such as long-term loans or insurance products. We discuss the supply of and demand for money in more detail in Part 2.

growth companies (KplusV, 2020; Rebel, 2020; Panteia, 2019; KplusV 2019). Moreover, this situation does not only apply to the Netherlands. Only a handful of countries, such as the United States and United Kingdom, have a large supply of risk finance (Glasner, 2021). This is due to the fact that companies in these countries are more likely to make use of non-bank finance, while Dutch companies more often rely on bank loans.<sup>14</sup> By definition, non-bank finance involves a greater availability of (high-)risk capital and thus promotes technological innovation and scale-up (Brown et al., 2009). In addition, research shows that this type of finance is more efficient than bank finance when it comes to allocating funding to energy-efficient sectors (Haas & Popov, 2022).

### 2.1 Insufficient supply of (high-)risk capital for innovations

When it comes to the transition to a sustainable economy, innovations are key. New techniques are needed to recycle wind turbine blades, develop cultured meat, make batteries more efficient, produce synthetic aviation fuels, apply nature-based solutions or reuse wastewater, for example. However, such innovations and the young companies working on them are struggling to attract funding (DNB, 2019; SER, 2018). That is because the risk profile is often high: by no means all the start-ups and growth companies that are developing new technologies will reach the finish line.

This shortage of (high-)risk capital is not only an issue in the area of sustainable innovation. Capital market research shows that in a number of areas demand for risk capital exceeds supply among start-ups and

To increase the number of emerging innovative companies in the Netherlands, it is essential to expand the supply of (high-)risk capital. In recent years the government has launched a number of different initiatives to this end (Eveleens & Vogelaar, 2022). These include the creation of Invest-NL (using a publicly financed investment fund focusing on sustainable innovations) and 'TechLeap' (a networking organisation offering support to start-ups and growth companies). In addition, since 2021 the Netherlands has had a nationwide network of Regional Development Agencies (RDAs) that work with private parties to finance innovative SMEs. The EU has also set up various programmes focusing on providing funding with a high risk profile.

<sup>14</sup> Another contributing factor is the fact that in many of these countries venture capital investment is encouraged through tax measures. Within the US, however, the usefulness and necessity of (generic) tax breaks for high-risk investments is the subject of debate (Metinko, 2021).



Despite all these measures, in the Netherlands the supply of (high-)risk capital has so far continued to lag behind demand. It is notable that the large pension funds in the Netherlands make relatively little of their capital available for high-risk investments (Atomico, 2022; Techleap & NVP, 2021). This is in contrast to pension funds in Scandinavia, the United States, Canada, Australia and Singapore, for example, which are more focused on venture capital investments.<sup>15</sup>

#### Sustainable start-ups struggling to attract risk capital

Energy Innovation NL notes that start-ups in the climate sector are struggling to attract capital other than grants. These include companies that are developing mobile generators that run on renewable energy to replace diesel generators, for example. Experience shows that grants never cover the total funding needs of such start-ups. The remainder has to come from the entrepreneur's own funds, small-scale private investment from friends or family, for example, or external risk capital, such as crowdfunding. Attracting this kind of external risk capital is not easy for start-ups (McDonald, 2022).

## 2.2 Insufficient supply of long-term finance

It is not only start-ups involved in developing innovations that require more funding: the same is true for companies that focus on scaling up sustainable concepts that have already been developed and making them operational. Here too there is a funding shortfall (PWC, 2022). This is a problem that affects the building of electrolyzers for the production of green hydrogen and the construction of plants for (mass) bioplastics production, for example. The fact that more mature sustainability initiatives like these struggle to attract sufficient funding is partly due to the term of the finance and the limited options for the lender to transfer the loan to another financial institution in the interim (so-called illiquid finance) or place it on the market.<sup>16</sup> The term and/or marketability of the loans are often not sufficiently aligned with the business model of banks and pension funds (see also Chapter 4).

#### Green hydrogen production projects: long and uncertain lead time

It is becoming increasingly clear that green hydrogen will play an important role in the energy system of the future.<sup>17</sup> Nevertheless, projects focusing on green hydrogen production are coming up against funding hurdles. Part of the funding problem lies in the fact that a hydrogen project has an uncertain lead time extending over a number of years; capital could therefore be tied up for a long period. This is what is known

<sup>15</sup> European start-ups and growth companies are frequently acquired by venture capitalists from Asia or North America. This involves a risk of technology and innovativeness 'leaking away'.

<sup>16</sup> A financial institution that buys shares on the stock exchange can sell them again (at a profit or loss) at any time. A financial institution that issues a long-term loan for the construction of a wind farm does not know in advance whether there will be a buyer if it wants to transfer this funding in the interim.

<sup>17</sup> As demonstrated, for example, by the Dutch National Hydrogen Programme and the European Hydrogen Strategy (European Commission [EC], 2020).



as an illiquid investment in the financial sector. It is estimated that the construction of an electrolysis plant alone could take between five and eight years, leaving aside any delays elsewhere in the chain, e.g. to upgrade electricity grids or connect the plant to a wind farm. The lead time for the entire chain could be as much as 13 years (CE Delft, 2021).

Furthermore, Dutch investments account for only a modest share of Dutch pension funds' investment portfolios. This is partly explained by the need to spread investment risk between the home market (Europe) and external markets (such as North America and Asia).<sup>18</sup> But it is also due in part to the approach of Dutch pension funds, which have simply decided to hold a limited proportion of Dutch investments in their portfolios.<sup>19</sup> Various experts point out that pension funds in Scandinavia and the United Kingdom, for example, follow a different approach. They invest significantly more in their home countries. The sizeable Dutch pension sector is thus only supporting the transition to a sustainable economy in the Netherlands to a limited extent.

### 2.3 Complexity hampers project creation and scale-up

The common thread in both of the above explanations for the lack of sustainable finance is that the availability of funds for sustainable activities is often insufficient to meet demand. However, there are also potentially sustainable projects that fail to get off the ground despite a sufficient supply of suitable finance. Rather than simply being left on the shelf, these available funds are then largely allocated to non-sustainable projects or projects that do not deliver a positive impact.

The sustainable projects referred to that do not get off the ground (despite a sufficient supply of suitable finance) are usually initiatives with a limited risk profile, such as installing solar panels on roofs of residential buildings or insulating homes. Although, individually, these are projects on a small scale, together they provide the critical mass needed for the transition to a sustainable economy. The fact that, in practice, there is less demand for money for these kinds of activities than there is money available can be attributed in part to the people concerned often being inexperienced and/or to there being many different parties involved. In many cases they lack the expertise needed to handle the complex coordination and management required and ensure the challenging decision-making process is conducted properly. In addition, the benefits of sustainability are not always clear to all the parties involved.

<sup>18</sup> A characteristic feature of the Dutch pension sector is the desire to avoid 'home market bias'. This means that pension funds want to avoid seeking investment opportunities predominantly within national borders. See, *inter alia*, APG (2022).

<sup>19</sup> This was discussed, for example, during Invest-NL's technical briefing to the Dutch House of Representatives on 5 October 2022 (Tweede Kamer, 2022).



### Making homes more sustainable too complex for private homeowners

For private owners, whether or not they have come together in the form of an Owners' Association (OA), implementing sustainability initiatives, such as installing solar panels on roofs or improving insulation, is often a complex task. As a result, they lack the confidence to get started with a project – even if funding is available and the investment would pay for itself within the foreseeable future. Providing targeted support to OAs, for example, offers an opportunity to significantly boost the achievement of the national sustainability targets. After all, as many as 1.5 million homes are part of an OA. Financial institutions such as banks could also play a proactive role here.<sup>20</sup>

Sometimes the 'split incentive dilemma' also comes into play. This describes a situation in which the interests of, say, a building owner (the landlord) and occupants (the tenants) diverge: the owner has to cover the cost of sustainability measures, while the tenants benefit from the result, in the form of lower energy bills. As a result of this conflict of interests, sustainability measures may not be taken.

Split incentives can also arise within the same organisation, due to compartmentalisation. If, for example, a financial institution extends credit for climate adaptation measures within the real estate sector, the financial benefits mainly accrue to the institution's insurance arm (in the form of a

<sup>20</sup> This may involve a form of business development that includes activities such as: identifying solar panel locations on rooftops and in fields using satellite photos, inspecting grid capacity through open data and/or making grants available in addition to bank finance. This would also require an active role on the part of the government (see Chapter 4).

reduced risk of climate-related damage), while the costs and risks are borne by the institution's mortgage arm.

Another obstacle to small-scale sustainable projects getting off the ground is the fact that they are not attractive to large financial institutions, such as pension funds. Small-scale projects are associated with relatively high implementation costs for such institutions, and these costs can form a barrier from the perspective of efficiency and the interests of pension plan participants. The government could play a role here on the basis of public-private partnership: it could arrange for small-scale projects to be pooled on a national level into programmes whose scale makes them a better fit for large pension funds, insurers and investment funds. Clustering small-scale projects in this way could make a major contribution to scaling up sustainability transitions.

## 2.4 Availability of sustainable finance given current economic developments

Above we have discussed a number of factors that explain why the large amounts of money available in the market over the past decade – partly thanks to the stimulus programmes of EU central banks – have been used for sustainable finance to such a limited extent. We have noted that there has been a mismatch between the supply of and demand for sustainable finance in a number of areas.

Meanwhile, the macroeconomic situation around the world (and therefore in the Netherlands too) is changing markedly. Inflation is higher than we could ever have imagined until recently. Interest rates are gradually being raised and the requirements that consumers and businesses have to meet when applying for loans are being tightened further (Boer, 2022a). What will this mean for the availability and phasing out of non-sustainable finance?

The precise impact cannot be properly assessed at this stage. However, we see a risk that the mismatch between the supply of and demand for sustainable finance will increase further in the near future.





### 3 EFFORTS WITHIN THE FINANCIAL SPHERE TO INCREASE SUSTAINABILITY

In the previous chapter we explained that there is a mismatch between supply and demand when it comes to financing the transition to a sustainable economy. This situation needs to be resolved. In this chapter we identify the steps taken so far within the financial sphere to promote sustainability. We examine the efforts made by financial institutions, regulators and the Dutch government respectively.

#### 3.1 Efforts on the part of financial institutions

In recent years many financial institutions have taken initial steps to prepare for and contribute to the transition to a sustainable economy.<sup>21</sup> These steps include both offering more sustainable finance and phasing out funding for non-sustainable activities. In addition, the financial sector is committed to being transparent about the sustainability policies it is pursuing. Sector-wide agreements have also been reached on the contribution to be made to achieving climate ambitions.

<sup>21</sup> Various banks have also started working with climate stress tests. However, the ECB recently highlighted that banks have not yet sufficiently embedded climate risks into their stress tests and internal models (ECB, 2022b).

## New forms of finance and changes to investment policy

A number of different banks have established specific investment funds for sustainable projects.<sup>22</sup> Some have also set up teams to allow sustainable projects to be assessed. In addition, banks have introduced so-called sustainability-linked loans, for example, where the level of interest charged depends on the sustainability performance of the applicant (Boer, 2022b).

### Public-private partnerships in sustainable finance

One form of finance that is being used increasingly on an international level to contribute to the Sustainable Development Goals is blended finance. This involves using public money to mobilise private funds that would otherwise not be invested (Pereira, 2017). The aim here, therefore, is to use public-private partnerships to create a flywheel effect. Examples include: the Sustainable Agriculture Investment Fund, BespaarGarant, the National Heat Fund and the Housing Incentive Fund. Such finance often also takes the form of a revolving fund. This means that (part of) the funding is paid back to the lender at the end of the term or in the event of a successful project.

In the Netherlands, RDAs are also successfully using this form of co-financing. Their activities are focusing on various areas of the transition, such as renewable energy production and energy saving,

the circular economy, sustainable agriculture and more. On average, each euro invested by an RDA generates between €3 and €6 in private co-financing (Buck Consultants International, 2022).

In addition, a number of pension funds have taken the decision to stop investing in oil and gas (see, for example, ABP, 2021). They are looking for alternative, more sustainable, investments (see, for example, ABP, 2022).

### Climate plans of pension funds: an example

One of the Netherlands' major pension funds explained in a recent climate plan how it intends to respond to and contribute to the sustainability transition. This fund has chosen to adopt an incremental strategy. Its 2030 target is to invest at least 30% of fund assets sustainably, with at least half (i.e. 15% of fund assets) invested in climate solutions. Conditions also apply to the portfolio as a whole. Investments in controversial weapons, tobacco and government bonds of countries subject to UN or EU sanctions are excluded, for example. While the actual sustainable investments made by pension funds are often still confined to specific funds or a limited proportion of overall investments, this fund is making plans to increase the sustainability of a large part of its portfolio incrementally. According to the fund's climate plan, a gradual approach is needed, as much is still not known and the world is not standing still.

<sup>22</sup> Recent examples include the Dutch Future Fund, Triodos Bank's impact funds, ABN-AMRO's Sustainable Impact Fund and ING's Sustainable Investment Fund.



With these initiatives, financial institutions are taking initial steps to increase (a) the supply of risk capital, (b) the supply of long-term finance and (c) the support given to promoters of complex projects. In this way they are responding to the mismatch between supply and demand identified in Chapter 2. At the same time, we have to point out that these initiatives are relatively small in scale, if we consider their financial scope against the background of the institutions' total assets. Within the financial sector, attention is still mainly focused at present on providing transparency; see below.

### **Transparency about sustainability policies**

In recent years financial institutions have been striving to provide greater transparency about the sustainability policies they are pursuing. For example, they prepare non-financial reports intended to make clear how sustainable the company in question is. These reports assess the company as a whole or a particular product (an insurance product or investment fund) against so-called ESG indicators:<sup>23</sup> environmental and climate impact, social impact and governance. Within this context it is important to avoid making false sustainability claims (greenwashing). Nevertheless, greenwashing is still commonly encountered.

The increasing transparency that financial sector institutions are providing with regard to their sustainability policies largely stems from (existing and forthcoming) EU legislation on the subject:

- *The Corporate Sustainability Reporting Directive (CSRD).* This EU directive is currently in preparation and is designed to replace the existing Non-Financial Reporting Directive (NFRD). Both directives require large companies (including financial institutions) to report on their policies relating to matters such as the environment, human rights and anti-corruption. If the CSRD is adopted, from 2024/2025 more companies than before will have to start reporting on their sustainability policies. Moreover, this reporting will have to cover more aspects of sustainability.
- *The Sustainable Finance Disclosure Regulation (SFDR).* This regulation came into force in 2021. It requires financial institutions to report on how they manage sustainability risks and negative impacts of their activities. The aim is to give customers an insight into the sustainability-related impact of the services they purchase from financial institutions.<sup>24</sup>
- *The EU taxonomy.* This is a list of economic activities that qualify as sustainable investments and is currently being expanded. Companies and financial institutions can use this list when making investment decisions and also when reporting on their sustainability policies. The current taxonomy shows which economic activities are 'climate-friendly' according to the EU. Other aspects of sustainability, such as biodiversity and circularity, are still being worked out and will be included in the expanded version of the list.

<sup>23</sup> ESG stands for Environment, Social and Governance.

<sup>24</sup> The European Court of Auditors has been critical about the introduction of the regulation. Following a 2021 survey, the Netherlands Authority for the Financial Markets (AFM) raised concerns about compliance (AFM, 2022).



- *The Corporate Sustainability Due Diligence Directive (CSDDD).* This EU directive, which is currently in preparation, focuses on addressing the negative impact that the activities of large companies and their suppliers have on human rights and the environment.

In our view, high-quality non-financial reporting that provides transparency, based on sufficient data, about the sustainability policies of financial institutions is important. To draw up such reports, a sufficient amount of reliable data will have to be made available and agreement will have to be reached on the measurement methods to be used. These are significant challenges, especially when it comes to reporting on aspects of sustainability other than the climate. Internationally, sustainability reporting standards are being worked on by bodies including the Task Force on Climate-related Financial Disclosures (TCFD), the Taskforce on Nature-related Financial Disclosures (TNFD), the International Sustainability Standards Board (ISSB) and the International Financial Reporting Standards Foundation (IFRS).<sup>25</sup>

## Double materiality

When reporting on sustainability, financial institutions should consider both the effects that their own actions have on sustainability (inside-out perspective) and the effects that sustainability transitions have on their organisation (outside-in perspective). This is referred to as 'double materiality' (Berenschot, 2022). The inside-out perspective is about the potential positive and negative impact that an organisation can have on the environment (e.g. by increasing biodiversity) and society (e.g. by reducing poverty). The outside-in perspective concerns the impact of sustainability-related risks (e.g. due to water or drought damage), but also the impact that sustainability-related opportunities can have on the organisation (e.g. due to new investment opportunities).

The question is to what extent such material impacts can ever be calculated fully. Sustainability involves complex dynamics that are never entirely quantifiable and are certainly not entirely predictable (Kedward et al., 2020). In addition to calculating risks, in our view the financial sector should also be aware that it is dealing with uncertainty. This implies that financial institutions should also adopt a more qualitative approach based on the precautionary principle (Tilburg et al., 2022).

However, the value of transparency should not be overestimated either. Reporting is believed to have an impact in terms of improving sustainability, but, in practice, transparency and accountability by no means automatically bring about actual improvements in this area (Gupta, Boas & Oosterveer, 2020). In this context, there is a risk that, in the future, the financial sector

<sup>25</sup> See TCFD (Task Force on Climate-related Financial Disclosures): <https://www.fsb-tcfd.org/>, TNFD (Taskforce on Nature-related Financial Disclosures): <https://tnfd.global/> and IFRS – International Sustainability Standards Board: <https://www.ifrs.org/groups/international-sustainability-standards-board/>



will continue to confine itself to reporting solely on ESG indicators, without ending value destruction and increasing value creation.<sup>26</sup>

### **Financial Sector Climate Commitment**

An important milestone was achieved in 2019, when 50 Dutch banks, pension funds, insurers and asset managers signed the ‘Financial Sector Climate Commitment’. In it they agreed (a) that financial institutions would henceforth start reporting on the climate impact of their investments and (b) that they would come up with an action plan by 2022 to reduce the financing of high-carbon economic activities. The first progress report on the implementation of the commitment reveals that 89% of financial institutions now report on the CO<sub>2</sub> emissions associated with (some of) the financing and investments they consider relevant (KPMG, 2021). Furthermore, 51% of participating financial institutions have published some form of action plan, with a number aiming to achieve climate neutrality by 2030 or 2050.<sup>27</sup>

The agreements set out in the Climate Commitment go beyond many similar international agreements (e.g. the ‘Glasgow Alliance for Net Zero’).

<sup>26</sup> The first progress report on the Financial Sector Climate Commitment (KPMG, 2021) also highlights this risk. Reports place a disproportionate focus on the ‘climate impact’ indicator in particular. This can be explained in part, although not entirely, by a lack of data. There is a greater ready-made supply of data on greenhouse gas emissions than on biodiversity, water pollution or hazardous waste, for example. At the same time, the perceived lack of data on these other indicators is at odds with the explosive growth we have seen in satellite observations and biodiversity databases. It may be more a problem of operationalisation (Haahr, 2021).

<sup>27</sup> At the time of publishing this advisory report, the second progress report on the Financial Sector Climate Commitment is expected at any moment. This will contain more up-to-date figures on progress.

Nevertheless, we have some reservations about the real significance of the Climate Commitment in terms of the transition to a sustainable economy. That is because the participating parties themselves decide which financing and investments are relevant and should be included in climate impact reporting. At present, most financial institutions therefore only report on the CO<sub>2</sub> emissions of a small proportion of their assets. Furthermore, the agreements made in the Climate Commitment are not enforceable. Last but not least, reporting on the impact that the institutions’ investments and financing have on other aspects of sustainability, such as biodiversity and the circularity of the economy, has yet to get off the ground.<sup>28</sup>

### **3.2 Efforts on the part of regulators**

Our national financial system has three regulators: De Nederlandsche Bank (DNB), the Netherlands Authority for the Financial Markets (AFM) and the Netherlands Authority for Consumers and Markets (ACM).<sup>29</sup>

- DNB’s role – as part of the Eurosystem – is to oversee the stability of the financial system. Part of this task involves supervision to ensure the soundness and integrity of financial institutions, balanced macroeconomic development, price stability and an efficient payment system.

<sup>28</sup> See, for example, the recommendations of the international Task Force on Climate-related Financial Disclosures (2017).

<sup>29</sup> An important supervisory role is also assumed by the European Central Bank, which is responsible for price stability at European level. Since 2014, the largest Dutch (systemic) banks have been under the direct supervision of the ECB.



- The AFM is responsible for so-called conduct-of-business supervision. This means the AFM ensures that financial institutions' processes (such as providing mortgages and insurance) are conducted in an orderly and transparent manner, that there is integrity of relations between financial institutions and that customers are treated with due care (Financiëن, 2019). The AFM thus ensures that financial markets are fair and transparent.
- The ACM enforces competition and consumer protection rules in most sectors of the economy. In some specific sectors where competition does not naturally exist (telecoms, post, transport and energy), the ACM also regulates consumer tariffs. In addition, the ACM helps consumers with information and advice so they can exercise their rights.

### **Focus on transparency in financial markets**

In recent years regulators have also been focusing more on transparency relating to financial institutions' sustainability policies. Gaining a better insight into risks and promoting better information are key aims here.

DNB announced some time ago that it would be further integrating climate risks into its supervisory approach for financial institutions, by including these risks in assessment frameworks, raising the handling of these risks in discussions with institutions and developing climate stress tests in consultation with them (DNB, 2017). Its approach centres around providing guidance to financial institutions.

The AFM is focusing on a few key areas within the financial sector where sustainability risks are present: shocks affecting the valuation of financial instruments, a lack of information, information that is unreliable and greenwashing (AFM, 2020). In view of these priorities, the availability, quality and comprehensibility of information for retail investors are key aspects covered by the AFM's supervision in the area of sustainability.

In carrying out its conduct-of-business supervision, the AFM is also maintaining an explicit focus on the need for financial institutions to report on non-financial aspects of their policies (AFM, 2019). In the past it has concluded on several occasions that EU rules in this area were not being properly followed and that financial institutions needed to make improvements. The AFM's approach was to engage with institutions on the importance of improving compliance, without ruling out taking enforcement action in the future. The AFM also monitors implementation of the European Shareholder Rights Directive II in the Netherlands, which aims to promote sustainable shareholder engagement.

Like the AFM, the ACM attaches considerable importance to combating greenwashing, in this case from a consumer protection perspective (ACM, 2020).

### **Other efforts in relation to sustainability**

For the time being then, both DNB and the AFM are focusing primarily on better-informed risk management (by financial institutions) to allow the risks of climate change and biodiversity loss to be managed. DNB is the



only party that also expresses the ambition of having a ‘positive impact’ on sustainable prosperity (DNB, 2021a). It is still looking for ways to achieve this. Leaving risk management aside, DNB’s efforts currently remain focused on analyses and reports on the risks of climate change and biodiversity loss and the establishment of working groups to identify practical solutions (DNB, 2021a). DNB also includes climate risks in the suitability test for (prospective) directors and supervisory directors of banks, insurers and pension funds (DNB, 2021b). Within the context of its supervision of financial institutions, DNB is relatively active in the area of sustainability, especially compared to central banks in neighbouring countries.<sup>30</sup>

### 3.3 Efforts on the part of the Dutch government

#### Commitment to transparency about sustainability policies

In recent years the Dutch government has also been making more explicit efforts to ensure greater transparency about the sustainability policies of financial institutions. At EU level, for example, it has contributed to the creation of the EU rules discussed in Section 3.1.

In addition, over the past few years the Dutch government has played a part in establishing the audit protocols of financial sector regulators, as described in Section 3.2.

<sup>30</sup> DNB’s supervision consists mainly of prudential supervision (focusing on the financial health of institutions) and supervision of the governance, conduct and culture of institutions and their directors. While DNB recognises the systemic risk that applies to financial institutions, this has not yet been translated into supervisory policy.

#### Commitment to start-ups and innovative companies

In recent years the Dutch government has contributed to the creation of a national network of RDAs (see also Section 3.1), which focus on supporting start-ups and innovative SMEs with knowledge and funding. The RDAs carry out this role as regional sister organisations of Invest-NL in relation to societal issues such as health, sustainability, food and digitalisation.

#### Financing of start-ups and innovative companies by RDAs

In 2021 the RDAs invested €143.7 million of their own funds in 250 start-ups and growing, innovative SMEs. Over 50% of companies raising high-risk finance do so in part with an investment from an RDA (ROM, 2022). This illustrates that ensuring good interaction between national and decentralised instruments is important for the economic transition.

#### Commitment to national policies focused on sustainable finance

In a number of neighbouring countries, national governments have developed policies and strategies in recent years to encourage sustainable finance. Luxembourg and Germany, for example, have had a comprehensive sustainable finance strategy in place since 2021 (Luxembourg Sustainable Finance Initiative, 2021; Bundesministerium der Finanzen et al., 2021), the United Kingdom incorporated the target of climate neutrality by 2050 into its central bank’s mandate that same year (HM Treasury, 2021) and France has been requiring its financial institutions to report on climate-related risks since as early as 2015 (République



Française, 2015, article 173) and also on the risks of biodiversity loss since 2019.<sup>31</sup>

Until recently, there was no such policy in the Netherlands, but this changed in June 2022. That is when the Minister of Finance and the Minister for Climate and Energy Policy published the *Sustainable Finance Policy Agenda* (Financiën, 2022), in which they underlined the importance of sustainable finance and emphasised the need for the financial sector to play an active role in it. The agenda outlines three ambitions:

- financial institutions should act as a flywheel for sustainability;
- transition-related (financial) risks should be adequately managed; and
- reporting standards should (a) provide an insight into all relevant sustainability factors and (b) prevent companies from pretending to be more sustainable than they actually are (greenwashing).

Above all, the agenda brings into focus the relationship between processes already under way. For example, it expresses support for the Climate Commitment from the financial sector that was discussed above (see Section 3.1). In addition, the agenda mentions that the Netherlands is in favour of EU policies designed to link capital requirements for banks to the level of sustainability of their loan portfolios and to increase transparency about the sustainability policies pursued.

The agenda is centred around (the management of) climate-related risks for financial institutions. Only a limited connection is made to the UN's wide-ranging Sustainable Development Goals. The agenda does not lay down any binding measures for financial institutions. It explains that the government will explore mandatory measures only if the sector makes insufficient progress. All in all, the current efforts of the Dutch government reveal a picture of a facilitating government that is following rather than leading and largely leaving it to the financial sector to take the initiative. In our view, however, the transition to a sustainable economy requires a government that takes the lead.

#### **Commitment to sustainable finance from the EU**

The Dutch government is also keen to ensure that the Netherlands takes full advantage of funds available within the EU, including through the European Investment Bank (EIB) and the European Investment Fund (EIF); see box.

#### **European Investment Bank and European Investment Fund**

The EIB and EIF are important public financial institutions. These EU bodies fund projects and enterprises – always in collaboration with private parties – that help the EU achieve its objectives. They provide funding on favourable terms to both banks and businesses, and often also play a role in setting up and implementing special EU funds, such as the European Fund for Strategic Investments (EFSI).

<sup>31</sup> French financial institutions also have to draw up strategies to reduce their biodiversity impact and make progress towards international targets (République Française, 2019). Furthermore, since an update to Article 29 of this law in May 2021, they have also been required to report on the basis of the double materiality concept (République Française, 2021).



For parties like the EIB and EIF, it is important that the financing they are involved in has a sufficient volume. They often rely on national investment institutions in EU Member States to prepare projects of sufficient scale. Some of these national investment institutions have developed over time, such as Germany's Kreditanstalt für Wiederaufbau (KfW), which has a broad mandate to contribute financially to projects addressing the country's societal challenges. Others are newly established, such as the Green Investment Bank in the United Kingdom, which has a specific focus on sustainability. The Netherlands currently lacks such a national investment institution.





## 4 BARRIERS TO SUSTAINABLE FINANCE

In the previous chapter we described the steps that financial institutions, regulators and the Dutch government have taken to date to promote a more sustainable economy. However, as we explained in Chapter 2, there is a mismatch between the supply of and demand for the required funding. Within this context there are four barriers that impede the growth of sustainable finance and the phasing out of non-sustainable finance. We describe these barriers in this chapter.

### 4.1 Short-term returns dominate business model of financial institutions

#### Short-term focus

Despite the increasing focus on sustainability, the vast majority of parties operating in the financial sector are guided by short-term returns (Henderson, 2020; Schoenmaker & Schramade, 2019; Loorbach et al., 2020; McDonald, 2022b). In practice, the financial shareholder value of investments is the most important measure of success and results have to be achieved primarily in the short term (Hart & Zingales, 2017). This short-term focus blinds institutions to (a) the risks associated with

non-sustainable investments in the medium to long term and (b) the returns from sustainable investments that become visible beyond the short term.<sup>32</sup>

During the transition to a sustainable economy there will be many more projects and activities that require relatively high upfront investments.

These investments will be gradually recouped over the lifetime of a project, as operating costs will then be relatively low. This is the case for wind farm construction, for example. The costs here mainly stem from the construction of wind turbines, after which energy production costs are low. However, making substantial upfront investments is difficult to reconcile with the short-term horizon of financial institutions.<sup>33</sup> This is therefore a complicating factor. The business model of most financial institutions is still geared towards the existing ('old') economy, which is dominated by requests for finance with an inverted expenditure curve: limited upfront investments and relatively high operating costs over the lifetime of the project. Gas-fired power stations, for example, are cheaper to build but more expensive to run because of fuel costs.

Incidentally, the time horizon that financial institutions use in their investment decisions differs from one type of institution to another (see also Part 2). Pension funds operate with a longer horizon than banks, for example. However, directly tradable investments, such as government

bonds and indices, are also overrepresented in the investment portfolios of pension funds. Pension funds exhibit a preference for such investments over illiquid investments in, for example, the hydrogen transport infrastructure, heating grids and renewable energy storage, which often cannot be directly traded.

### **Calculation models used not geared towards the timeframe of the sustainability transition**

A financial institution decides whether to support a particular economic activity with funding, and on what terms, based on the results of calculation models. Depending on the assumed risk, financial institutions may apply an interest surcharge or discount to the loan granted to the company in question. This risk level is also determined on the basis of internal models.

The use of these calculation models disadvantages companies that need finance for sustainable economic activities. This is because the models mainly look backwards: how likely was it in the past that a particular form of finance was or was not repaid (EC, 2016)? In addition, the calculation models are mainly tailored to conventional business models. A sustainable business model, based on the circular 'product-as-a-service' concept,<sup>34</sup> for example, often has different revenue and risk profiles. As a result, it cannot be properly assessed within conventional frameworks. So in many cases, the desired data is lacking for innovative, sustainable projects and business models, and this is then considered a risk (PBL, 2015; SER, 2018).

<sup>32</sup> An additional problem is that banks have already built up significant loan portfolios in non-sustainable sectors of the existing economy. These legacy loans present banks with a dilemma: financing new sustainable sectors is attractive in itself, but the success of these newcomers could lead to a loss of value in the existing loan portfolio (CEPR, 2022).

<sup>33</sup> As they often have higher upfront investments, sustainable projects are affected to a relatively high degree by rising interest costs.

<sup>34</sup> The 'product-as-a-service' concept involves products being returned to the supplier at the end of a subscription period. They are then renewed and brought back into circulation.



In short, the current indicators used by lenders are a serious barrier to obtaining finance for sustainable economic activities. Sometimes this prevents sustainable activities from getting off the ground.

### Limited capacity to assess sustainable projects

The expertise that institutions have in house is mostly limited to knowledge about existing economic activities. As a result, financial institutions often lack the necessary capacity to assess the revenue model of sustainable businesses. Moreover, many sustainable activities are cross-sectoral, making it particularly difficult to evaluate risks and growth opportunities.<sup>35</sup> For example, institutions do not have any specialists with knowledge about the market for a circular product or the additional price people are willing to pay for it (Tilburg et al., 2018).

### Microdata often unavailable

More and more data is becoming available that allows us to determine the carbon impact of finance. However, little data is available on the impact of finance on other aspects of sustainability. Moreover, this data often needs to be more detailed because – unlike when calculating the impact of economic activities on global CO<sub>2</sub> emissions – calculating the impact that economic activities have on biodiversity, air quality and the depletion of ecosystem services requires local, area-specific conditions to be taken into account. Attempts to work with real data and validation have made great strides in recent years, but have not yet reached the desired level in all areas. The

agriculture sector already has a strong information base in this regard: the ‘quantitative information’ that has long been collected by Wageningen University & Research and Statistics Netherlands (CBS). However, a lot of the information that the financial sector needs is still missing.

### Conclusion: the unconventional must become mainstream

The short-term focus of financial institutions, the calculation models they use, the limited capacity they have to assess sustainable projects and the lack of good data on their sustainability impact – all these things have a lot to do with what is common. Understandably, the financial sector is strongly geared towards financing common activities within the existing economy and common processes within financial markets.

The transition from non-sustainable to sustainable finance will to some extent run in parallel with a general increase in the sustainability of the existing economy. In this respect, the shift to sustainable finance is about making the unconventional mainstream. After all, once sustainable agriculture has become the norm, for example, funding for this sector will, by definition, also be sustainable. During the transition, sustainable finance will accelerate the normalisation of sustainable economic activity.

<sup>35</sup> This problem of information asymmetry and a lack of ‘track records’ was already identified some time ago; see, for example, PBL (2015).



## 4.2 Financial sector rules and supervision not geared towards sustainability

### Mandate for monitoring sustainability applied to a limited extent

The primary supervisory mandate of central banks like DNB is to oversee the stability of the financial system.<sup>36</sup> Whether sustainability falls, or should fall, under this primary mandate is the subject of debate. Various international organisations believe it should (WWF, 2022; DNB, 2021ac). However, some highlight the risk that this could dilute regulators' principal role.<sup>37</sup> We support the current practice of DNB, and also the ECB, in this regard, which is that, given the financial risks involved, sustainability (or non-sustainability) forms an integral part of their mandate. Nevertheless, we note that sustainability is only being monitored to a limited extent within the financial sector. This limited monitoring is reflected in:

- an overly narrow focus on climate (rather than on the wide range of areas covered by the UN Sustainable Development Goals);
- an overly narrow focus on financial risk management (rather than on positive impact);
- an overly narrow focus on agenda-setting (rather than enforcement).

In practice, the existing mandates are sufficient to engage with sector parties, but provide only limited grounds for enforcement. After all, a regulator can only take enforcement action if the government creates a legal basis for this.

### Current capital requirements for financial institutions unfavourable for sustainable investments

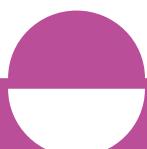
Following the 2008-2011 financial crisis, agreements were reached within the EU on the risk buffers that banks and insurers should hold to withstand unexpected losses. In the case of banks these agreements were set out in the so-called Basel III agreement. Insurers are subject to the Solvency II supervisory regime, which is similar in nature. In short, banks and insurers are subject to capital requirements that determine how much money they need to hold as a buffer.

At EU level, the possibility of tightening capital requirements for non-sustainable investments and relaxing them for green investments is now being considered.<sup>38</sup> This would reflect the fact that non-sustainable investments pose increased risks to the financial system in the longer term, while sustainable investments actually reduce systemic risks over such a horizon (Schoenmaker & Tilburg, 2016). However, until this policy change

<sup>36</sup> This is laid down in Article 1:24 of the Dutch Financial Supervision Act (Wft).

<sup>37</sup> The debate on the mandate of the United Kingdom's central bank is a good example in this context. This mandate was extended in 2021 to support the government's goal of 'net-zero carbon emissions by 2050'. In a letter sent to the Financial Times a former governor of the central bank strongly criticised the broadening of the mandate, claiming that, after all the unconventional interventions in the wake of the banking crisis, central banks were once again moving too far away from the inflation mandate as their central objective (Skidelsky, 2021).

<sup>38</sup> In 2020 the ECB defined supervisory expectations relating to the climate and environmental risks of financial institutions. Taking these as a basis, a thematic review of 186 banks was conducted in 2022 to establish the extent to which banks' risk profiles and policies are in line with these supervisory expectations. In its final report the ECB points out that a small number of institutions are lagging behind to such an extent that this will have implications for the capital requirements imposed on them. Moreover, all institutions must comply fully with the supervisory expectations by 2024 to avoid similar measures (ECB, 2022c).



takes effect, non-sustainable investments will remain relatively favourable for banks and insurers. After all, the negative environmental impacts have not yet been priced in and the sustainability risks are not leading to increased capital requirements.

#### Relationship between capital requirements and bank tax

During the 2008-2011 financial crisis, the government ended up acting as a guarantor for risks in the financial system: banks were kept afloat with government support because they were too important to fail. A bank tax was introduced in 2012 so that this implicit state guarantee had a ‘price tag’ attached to it. Tighter capital requirements were also imposed on banks.

At the time, the introduction of these instruments was mainly motivated by the fact that banks were holding insufficient financial buffers.

However, the situation has since changed. We are now faced with another question: are the price tag attached to implicit state guarantees and the prescribed size of the buffers sufficient, given the systemic risks that non-sustainable loan portfolios pose to both banks and the government?

### 4.3 Overrepresentation of government bonds in pension fund portfolios

With the transition to a sustainable economy in mind, it would be desirable for pension funds to make long-term investments in sustainable real estate, and in infrastructure for hydrogen transport, heating grids or energy

storage, for example. Investing in shares of sustainable companies would also support the transition. As we explained in Chapter 3, pension funds and pension insurers sometimes have ambitious plans to become more sustainable, but they encounter significant barriers to doing so.<sup>39</sup> One such barrier is the role played by government bonds within the Dutch pension system (including the related interest rate hedging).

The current portfolios of Dutch pension funds are more interest rate sensitive than is usually the case in many other pension systems, such as in Canada and Australia. That is because, under the current system, Dutch pension funds work with pension guarantees. Government bonds are ideal for this purpose, as they can be sold at practically any time and also offer a secure income stream. However, the large proportion of such investments within the portfolios of Dutch pension funds also has its downsides. Although government bonds offer a secure return, this is often not adjusted for inflation, and they also contribute less than targeted investments to building a sustainable economy.

Under the new pension system, which is expected to come into force in 2023, these rules will be updated.<sup>40</sup> The pension guarantee will then no longer apply and pension payments will be able to fluctuate annually. In theory, guaranteed income from government bonds will then become less

<sup>39</sup> Also consider, for example, the high organisational costs involved in setting up complex infrastructure projects as well as a lack of attractive investment opportunities in the Netherlands (such opportunities do arise in other countries, thanks to the work of their national investment institutions).

<sup>40</sup> In June 2019 the government and employers’ and employees’ organisations agreed on a new pension system in the Pension Agreement. The resulting Future of Pensions Act will come into force in July 2023, subject to the bill being approved by the House of Representatives and the Senate.



important. This will, in principle, give pension funds more scope to opt for long-term investments in sustainable real estate and core infrastructure. Moreover, these long-term investments will also be capable of delivering stable income, which, in contrast to government bonds, will often also rise with inflation.

Nevertheless, we consider it likely that government bonds will remain overrepresented in pension fund portfolios. That is because we expect the vast majority of pension funds to switch over to lifecycle investing, which takes the life stage of participants into account. As they age, participants require a predictable pension, which is expected to be achieved through government bonds. The Act will also introduce the possibility of withdrawing 10% of the pension upon reaching retirement age. Pension funds will have to maintain buffers to allow for this and here again government bonds can offer a solution. Our concern is that, in practice, this will come at the expense of illiquid investments in sustainable real estate and sustainable core infrastructure, even though they generate relatively stable returns.

#### 4.4 Fragmented government funding and project support

If financial institutions fail to make finance available to improve the sustainability of the economy, the government may choose to take on that role. In this way it could address the market failure to some extent. Taking this action as a government is a particularly logical step if the (financial)

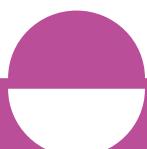
risks are too high for financial institutions or if the return to be achieved is societal rather than financial.

In recent years the Dutch government has set up numerous investment organisations and financing funds with the aim of stimulating innovative developments and sustainable economic activities. The government has therefore become a player within the financial sector – sometimes directly, by providing finance or insurance to companies, and sometimes more indirectly, by providing finance to financial institutions, which in turn channel this capital to end users. Many, if not most, of these investment organisations established by the government aim to make investments together with private parties. Invest-NL, for example, cannot acquire a majority stake in the companies it supports.

The government's approach has resulted in a diverse range of organisations and funds being established over the years,<sup>41</sup> such as Invest-NL, Invest-Internationaal, the Dutch Entrepreneurial Development Bank (FMO) and the Housing Incentive Fund.

Unlike many other EU countries, the Netherlands does not have a single, large-scale, national investment institution that can act as a recognisable partner for private parties and pension funds when setting up and financing major investments as part of the transition to a sustainable economy

<sup>41</sup> The Netherlands Court of Audit also notes this in its study on revolving funds (Algemene Rekenkamer, 2019).



(Mazzucato & Penna, 2016). Germany and France, for example, do have such an institution; see box.

As the provision of government finance and support for sustainable economic activities is fragmented, private parties in the Netherlands that are seeking capital have to do business with a host of semi-public entities on the financial market. In practice, this presents a barrier to the initiatives of innovative and sustainable companies. Moreover, because of this abundance of institutions, the Netherlands lacks the necessary direction and clout that can be seen in other countries, where national investment institutions are central players capable of channelling capital towards public transition-related activities.

In addition to the wide range of organisations and financing funds referred to above, in recent years the Dutch government has also introduced separate grant funds for specific societal challenges. Examples include the National Growth Fund, the Nitrogen Fund and the Climate Fund. These funds make the supply of finance even more fragmented. They also have two other drawbacks. Firstly, grant funds are managed independently by the ministries. This means no use is made of the knowledge and experience that financial institutions have when it comes to financially supporting economic activities. Secondly, by opting for grant funds, the government is passing up the opportunity to cash in on any returns generated by supported projects. As a result, the government bears the expense and risk, while private parties reap the profits.

## Inspiration from abroad

Through a variety of measures, foreign governments are contributing to the availability of targeted funding to make their economies more sustainable. Seven inspiring examples are described below. They demonstrate that active national policies on sustainable finance are possible, despite the international interdependence of the financial system.

1. *Setting up a sustainable investment bank.* In the United Kingdom the national government set up the Green Investment Bank in 2012. This was initially a state-owned bank, with a capital allocation of £3 billion. It was privatised in 2017. However, the UK government missed having this tool at its disposal and therefore established another state-owned green investment bank, the UK Infrastructure Bank, in 2021.
2. *Using a national investment institution for the sustainability transition.* Germany's Kreditanstalt für Wiederaufbau (KfW) was originally set up by the national government as part of the Marshall Plan. In 2021 the KfW raised €83 billion on the international capital markets. The state-owned bank will also be strengthening its cooperation with the financial sector to promote innovation in sustainable financial products.
3. *Establishing a public investment bank.* In 2013 the French government established a public investment bank, Bpifrance. This bank was the result of a merger between the Caisse des dépôts et consignations and EPIC BPI-Groupe. Bpifrance is intended to function as a one-stop shop for French entrepreneurs looking for risk capital or long-term capital.



The organisation presents itself as a financial institution with a private culture that serves the public interest.

4. *National coordination of sustainable finance.* In recent years, Singapore has focused a great deal of attention on ensuring coordination between all parties involved in the financial sector: the central bank (MAS), the Sovereign Wealth Fund (GIC), the national investment institution (Temasek) and the Wealth Management Institute (WMI), as well as the stock exchange (SGX). The results of this cooperation include large-scale investments in the transition to the sustainable economy, in cooperation with (private) investors and (foreign) pension funds.
5. *Integrating sustainability into the central bank's mandate.* In 2021, in the United Kingdom, the national government aligned the central bank's mandate with the target of net-zero carbon emissions by 2050.
6. *Introducing national transparency legislation for financial institutions.* In 2015 the French national government placed financial institutions under a legal obligation to draw up strategies relating to climate risks and report on the management of these risks. Since 2021 these obligations have also applied to biodiversity risks.
7. *Investment in venture capital funds by pension funds.* In Scandinavia pension funds invest seven times more in venture capital funds than the EU average. Sweden scores highest in this respect (Atomico, 2021). This demonstrates that pension funds can play an important role in the transition to a sustainable economy, for which innovations are key.



## 5 CONCLUSIONS



In the Netherlands, initial steps have been taken in recent years within the financial sphere to move towards more sustainable finance. Some examples:

- the 2019 *Financial Sector Climate Commitment*, in which 50 Dutch banks, pension funds, insurers and asset managers agreed that they would henceforth report on the climate impact of their investments and draw up an action plan to reduce the financing of high-carbon activities;
- publications by financial sector regulators (DNB, AFM and ACM) calling for a greater focus on improving risk management at financial institutions, with the aim of managing the risks of climate change in particular; and
- the *Sustainable Finance Policy Agenda* published by the Minister of Finance and the Minister for Climate and Energy Policy, which includes the ambition for financial institutions to act as a flywheel for sustainability and provide an insight into their commitment to sustainability through reporting standards.

One point that stands out to us is that, at present, parties within the financial sphere are mainly focusing on providing transparency. This is important, but is not sufficient given the unavoidable nature of the transition to a sustainable economy. The financial sector will have to better

anticipate the creation of this sustainable economy and contribute more to the concrete steps needed for the actual transition.

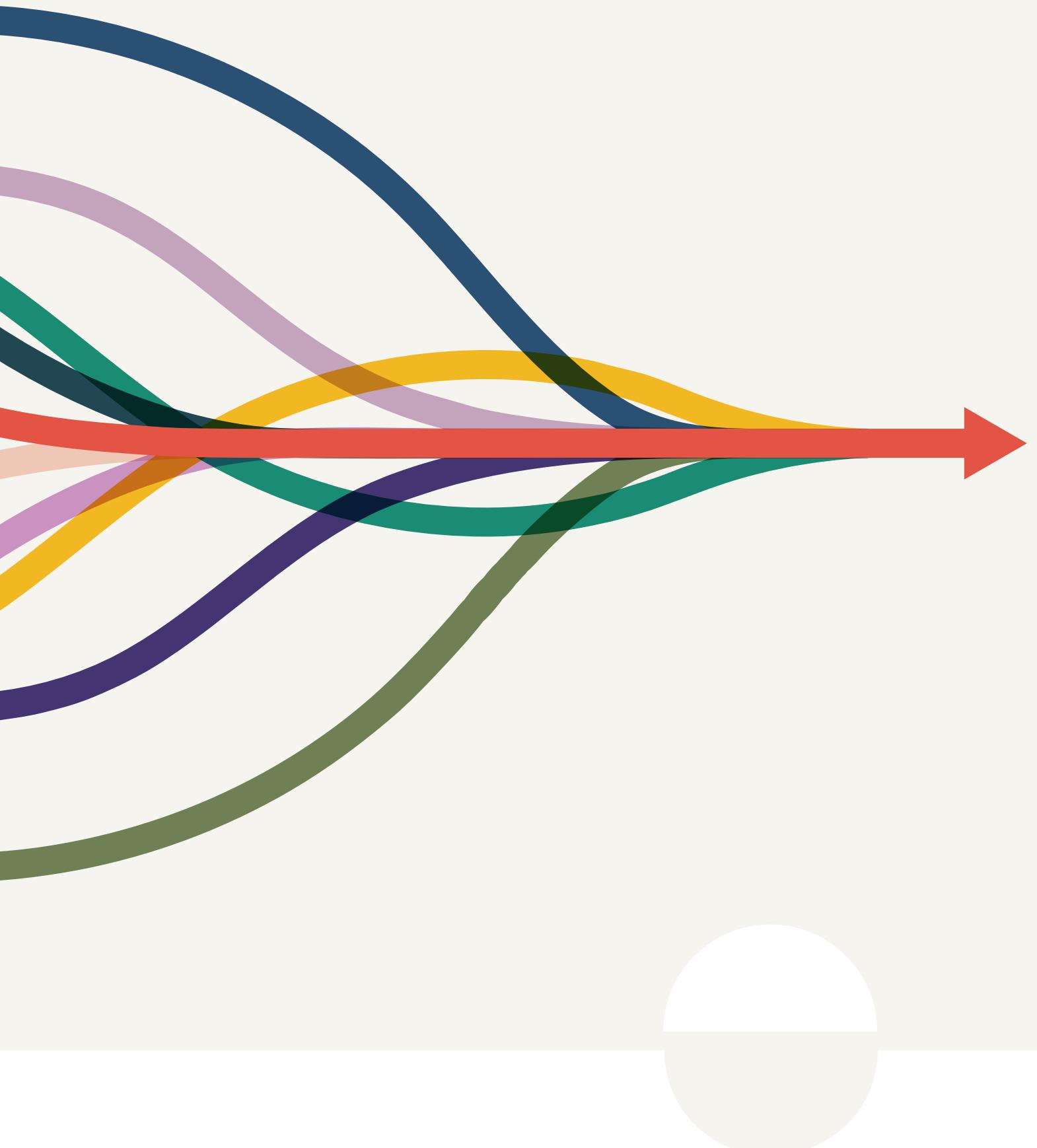
We have also noticed that most parties in the financial sector are largely limiting their efforts to addressing the climate challenge. Again, this is important, but it is not enough on its own. To facilitate the transition to a sustainable economy, financial institutions also need to work explicitly on the other challenges in the area of sustainability, such as biodiversity, preservation of natural capital, circularity and inclusion.

In this advisory report we have identified four barriers to the transition to a sustainable economy in the financial sector: (1) a focus on short-term returns at financial institutions, (2) rules and supervision that are not geared towards sustainability, (3) an overrepresentation of government bonds in pension fund investments and (4) a fragmented provision of sustainable finance and project support from the government.

In view of these four barriers, we consider it unlikely that the Dutch financial sector will be able to take the necessary steps independently. We believe that additional government policies will be needed: not only stimulating and facilitating policies, but also policies that force the sector to act. In other words, a carrot-and-stick approach. The *Sustainable Finance Policy Agenda* states, however, that the Dutch government will explore mandatory measures only if the financial sector makes insufficient progress. In our view, the government should not postpone such measures.



# 6 RECOMMENDATIONS



The Dutch government has various options at its disposal to steer financial institutions in such a way that they (a) anticipate the creation of a sustainable economy and (b) actively contribute to the transition towards it. It has taken the first steps to this end with the *Sustainable Finance Policy Agenda*. We believe, however, that the government should assume an even more active role and in this chapter we make four recommendations on how it could do so. These four recommendations complement those we previously set out on using pricing, regulation and standardisation in relation to non-sustainable economic activities to achieve a coherent policy for the transition to a sustainable economy (Rli, 2019). It is in combination that our old and new recommendations have the potential to accelerate this unavoidable transition.

## 6.1 Embed sustainable development in the business model of financial institutions

The existing business models of Dutch financial institutions are a barrier that stops them making the necessary contribution to the transition to a sustainable economy. These business models describe the tools an organisation can utilise to create, deliver and retain value. They include, for

example, the calculation and decision-making models to be employed and the working method.

In our view, it is important for financial institutions to better understand the positive and negative impact of their financing activities and their dependencies on the transition. To this end, the Minister of Finance will have to ask signatories of the *Climate Commitment* to cover not just the climate impact, but also other aspects of sustainability in their progress reports, in anticipation of EU rules such as the CSRD and CSDDD. During the first few years the Dutch government could support the development of capacity for preparing progress reports on these other aspects of sustainability, to avoid the expansion of reporting holding back progress on the climate commitment.

Furthermore, we believe it is important that the traditional calculation models currently used to make financing decisions are transformed into forward-looking models geared towards the (transition to a) sustainable economy. This will require regulators and financial institutions to work together. Specifically, we are proposing that the necessary revision of calculation models be driven forward through pilot projects involving representatives not only from science, policy analysis bureaus and pension funds, but also pioneers of the sustainable economy with practical experience. In addition, we are proposing that these parties jointly develop a 'climate-economic' scenario that can be used as a basis for the calculation models. The macroeconomic studies of the Netherlands Bureau for Economic Policy Analysis (CPB) and the climate scenarios of

the Netherlands Environmental Assessment Agency (PBL) could be used in combination as a starting point here. The next step is to expand the 'climate-economic' scenario to include the other sustainability transitions.

The progress reporting and new calculation models we are advocating here will help ensure that (a) more money is channelled to financing a sustainable economy and (b) less money is allocated to the non-sustainable economy. However, that is not enough to make the financial sector's actions genuinely sustainable. We are therefore also making the following additional recommendations:

- The Minister of Education, Culture and Science (ECS) should place a greater emphasis on sustainable development in financial and economic study programmes. To this end, he should ask the University Education Council, the Higher Professional Education Council and the Senior Secondary Vocational Education Council to outline how transition-related thinking could be embedded in financial and economic education.
- The Minister of Finance, in collaboration with the Minister of ECS, should encourage the financial sector to establish a 'sustainable finance' study programme. Rather than an entirely new programme, we are talking here about bundling and enabling broader access to existing training and study programmes, tailored to the knowledge requirements of directors, supervisory board members, financial advisers and accountants.
- The Corporate Governance Code sets out principles for good governance that also apply to most of the financial institutions in the Netherlands. This code was recently revised. One new element that has been added requires company directors to put long-term sustainability at the heart of



strategy definition and decision-making. That is a positive development. In the upcoming government response the Minister for Economic Affairs and Climate Policy should make proposals to ensure compliance with the code. Against this background, we are arguing for remuneration policies to be linked in part to performance in the area of sustainability.

- The Minister of Finance, in consultation with the relevant line ministers, should support the development of microdata used to determine the effects of measures on the sustainability of finance. In this context, we endorse the ambitions set out in the *Sustainable Finance Policy Agenda* and advocate providing substantial support to pilots and research in this area.
- The Minister of Finance should demand the highest standard from state holdings when it comes to non-financial reporting. This applies, for example, to BNG Bank, Nederlandse Waterschapsbank and financial institutions in which the state is a shareholder. Moreover, we believe that the Dutch government, as a shareholder in such institutions, should set an example by holding the organisations concerned to account not only for their financial returns, but also their societal returns.

## 6.2 Give sustainability greater prominence in financial sector rules and supervision

### A. Clarify the scope of the concept of sustainability within regulators' existing mandates

Given the financial risks associated with financing non-sustainable activities, sustainability falls explicitly within the existing supervisory mandates of DNB, the AFM and the ACM. However, the scope of the concept of sustainability within these existing mandates is the subject of some debate. In our view, sustainability should therefore be incorporated explicitly into the Banking Act, for example. Here the legislator can draw on previous experience acquired in relation to the Pensions Act, into which sustainability (translated into ESG indicators<sup>42</sup>) has been integrated as a fiduciary duty of directors. An explicit mandate to monitor the impact of sustainability transitions will give democratic legitimacy to the sustainability efforts of financial sector regulators, as well as enabling them to take more effective enforcement action. For certain aspects of DNB's supervisory task (banking supervision), this will have to be embedded at European level.

An important consideration in all this is that regulators should take an unambiguous concept of sustainability as a basis for their actions. This will avoid inconsistency in their supervision and create clear expectations within the sector. In this respect we suggest using the concept of 'double

<sup>42</sup> ESG stands for Environment, Social and Governance.



'materiality' and aligning with the UN's Sustainable Development Goals. The concept of 'double materiality', which involves considering both the financial risks to financial institutions and the societal impacts caused by their actions, is increasingly being embraced within the financial sector and has already been incorporated into legislation in France, for example. Where the Sustainable Development Goals do not provide sufficient guidance, the EU taxonomy for sustainable investments will soon offer a solution. After all, this taxonomy will gradually become fully operational over the next few years and can already be applied in relation to the climate.

#### *B. Link capital requirements for financial institutions to sustainability*

We endorse the Dutch government's view, as expressed in the *Sustainable Finance Policy Agenda*, that there is a need to adapt the capital requirements applicable to financial institutions at EU level to better reflect the risks (at institution level but also systemic risks) of sustainable versus non-sustainable investments. In other words, higher sustainability risks at financial institutions should lead to higher capital requirements. This will make it more attractive for banks and insurers to finance fewer non-sustainable activities and allocate more money to ones that are sustainable. Higher capital requirements will also ensure that, if financial risks actually materialise, institutions will be better able to cope with them themselves.

Against this background, we are calling on the Dutch government to develop proposals more proactively, as a contribution to the EU debate on updating the Basel III and Solvency II capital requirements. Furthermore,

we support DNB's suggestion to pay more attention to the risks arising from the complex concentration of sustainability risks (DNB, 2022c). These adjustments to the requirements relating to capital and concentration will contribute both to the phasing out of funding for the non-sustainable economy and to the availability of more long-term funding, including from banking institutions.

#### *C. Restructure bank tax with sustainability in mind as soon as measurement tools are available*

Following the 2008-2011 financial crisis, the bank tax was introduced as a way of attaching a price tag to the government's guarantee in relation to systemic risks. The underlying problem was the lack of sufficient financial buffers at banks. As we indicated in Chapter 3, banks have now built up such buffers.

We are in favour of adjusting the bank tax in such a way that it takes into account the risks posed by a non-sustainable loan portfolio and is tailored to the current and future risk environment. Specifically, this means we believe that the *type* of loans banks have issued should also be considered. If a bank has lent a lot of money to risky businesses and little to future-proof businesses, the overall risk to which such a bank is exposed during the transition period is very high. This should be reflected in the design of the bank tax. This not only means that a price tag remains attached to the implicit government guarantee, but also makes the bank tax an incentive that will encourage the transition to a sustainable economy.



At present, it is not yet feasible to establish the negative impact of outstanding loans conclusively as a basis for taxation. However, with the advent of the EU taxonomy and other reporting standards, that moment is getting ever closer. We therefore recommend restructuring the bank tax with sustainability in mind as soon as the measurement tools are available.

#### *D. New-style angel investor scheme: focused on sustainability*

The availability of sufficient risk capital is an important prerequisite for achieving sustainable innovations that are suitable for scaling up. Private individuals also play a major role in making this form of financing available. We therefore advocate exploring whether tax measures could be used to encourage more private individuals to invest their wealth in sustainable innovations. Here we are thinking, for example, of a new-style angel investor scheme that is focused on sustainability. This measure would help to resolve the shortage of high-risk finance identified in Chapter 2.

inflation-linked investments<sup>43</sup> is properly valued in the government-regulated calculation rules and models.

As yet there are no signs that, based on the calculation rules and models employed in the new pension system, the sustainable illiquid investments we are advocating will achieve a greater share within pension fund portfolios. We consider this a missed opportunity, as investments in infrastructure and sustainable real estate are crucial for the transition to a sustainable economy. Properly valuing the expected long-term return on these types of investments in the government-regulated calculation rules and models would thus make a significant contribution to resolving the shortage of long-term finance identified in Chapter 2. Moreover, these types of investment provide relatively stable income that is often linked to Dutch or European inflation. Consequently, they contribute, more than government bonds, to the social objective of the pension system: ensuring that a pension maintains its value over time.

### **6.3 Encourage sustainable investments within the new pension system**

We recommend that the Minister for Poverty Policy, Participation and Pensions take the overhaul of the pension system as an opportunity to encourage pension funds to invest more actively in the transition to a sustainable economy. For example, funds could invest more of their fund assets in energy infrastructure and sustainable real estate. A crucial aspect here is that the long-term return expected on these types of stable,

Government bonds will obviously remain an important part of investment portfolios, but, given the size of Dutch pension pots, even a small shift could make a big difference.

We also call on the Minister for Poverty Policy, Participation and Pensions to ask the Parameters Committee to address the financial risks of the transition during the next review of the (statutory) pension fund parameters. The

<sup>43</sup> These types of investments are a means of generating cash flows in keeping with the ambition of accruing a pension that maintains its value over time, using indexation to compensate for inflation.



Committee's most recent advice was published on 30 November 2022. It states that sustainability risks cannot yet be taken into account, given the uncertainties and available data. In view of the rapid developments we are seeing in the areas of data and measurement methods, we recommend that a further review incorporating sustainability risks be commissioned after the introduction of the new pension system, but still within the current government's term of office.

#### **6.4 Create a fully-fledged national investment institution**

We recommend that the Dutch government create a national investment institution. This institution should not, however, become a new addition to the currently fragmented landscape for the supply of public finance. Instead, it should bring together and strengthen existing institutions and instruments. We believe that Invest-NL and parts of the National Growth Fund and Climate Fund could form the basis for this institution. BNG Bank and Nederlandse Waterschapsbank (NWB) would maintain their independent position in the financing chain.

The national investment institution will need to be capable of occupying a central position on the market, with a strong capital base and a broad mandate. From this position it can ensure there is more public-private investment in the transition to a sustainable economy: so-called blended finance, which in part often also takes the form of revolving facilities. The institution will thus make an important contribution to addressing the shortage of both high-risk and long-term finance identified in Chapter 2.

The national investment institution will also provide a strong basis for attracting knowledge and capacity and ensuring direction. In our view, the institution should be given a broad mandate, important elements of which being long-term funding for scaling up sustainability transitions and support in setting up sustainable projects. It is precisely through this support for setting up and scaling up complex projects (with the benefit of more people and greater clout than the existing organisation Invest-NL) that the national investment institution can make an important contribution to resolving the scaling-up issues identified in Chapter 2.

Neighbouring countries have national investment institutions that can serve as examples. These institutions, such as the KfW in Germany, Bpifrance in France and the UK Infrastructure Bank in the United Kingdom, are capable of making large-scale investments to tackle national societal challenges. They do so as a private institution, but on the basis of a public mission. The size and pivotal position of these organisations make them a powerful partner for financial institutions.

Having a robust, central, national investment institution at arm's length from the government makes it easier to invest on a large scale in the economic transition. Such an institution can also ensure that public funds are used more effectively, because:

- unlike Invest-NL, for example, a national investment institution can raise money itself using its own funds as leverage, allowing it to issue a much larger amount of loans to companies and projects with a relatively limited capital injection;



- unlike the National Growth Fund, for example, which issues grants, a national investment institution gets its money back (sometimes even with a positive financial return) if the projects funded are successful.

Another advantage of a national investment institution over the existing range of public funds and state holdings is the ability to pool knowledge and expertise. This makes it possible to professionally assess a wide range of investment proposals. The national investment institution can build on the cooperation that Invest-NL has recently initiated with the National Growth Fund and Climate Fund, as well as the planned cooperation with Dutch pension funds (Tweede Kamer, 2022). Conditions for ensuring the successful further development of Invest-NL are: (a) broadening its mandate (including the possibility of raising funds itself) and (b) creating ample opportunities to attract the knowledge and capacity needed to cope with its new, more demanding task.



## PART 2 | EXPLANATION AND IN-DEPTH ANALYSIS



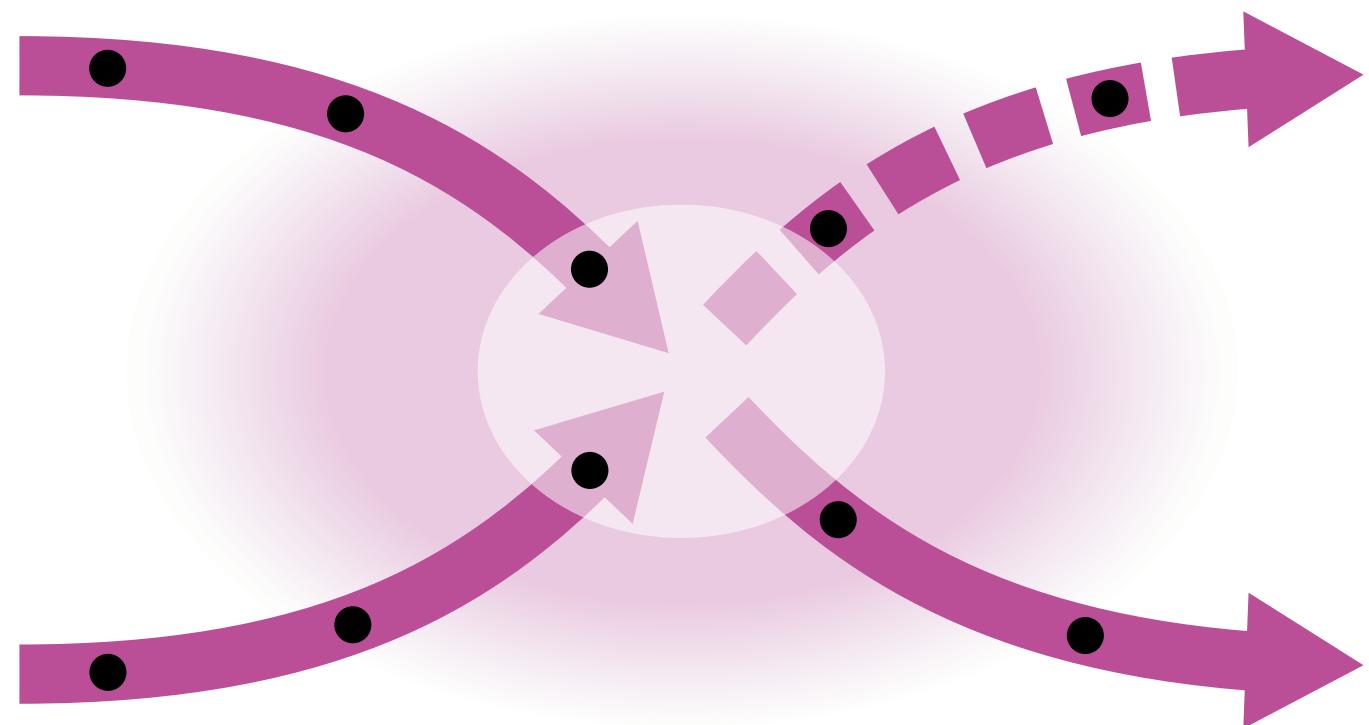
### 1 TRANSITION TO A SUSTAINABLE ECONOMY

In this advisory report we look at sustainability from a ‘transition perspective’, as we did in our advisory report ‘Towards a sustainable economy’ (Rli, 2019). That means we assume that a sustainable economy is only achievable if we make fundamental, structural changes to the way we work, produce, consume, feed ourselves, move around, etc. Some parts of the economy will prove to be obsolete and will be phased out, while other, new parts will be built up – partly in the form of ‘converted’ sustainable variants of existing economic processes. This transition process is often represented as an X-curve (Loorbach et al., 2017).

A certain amount of instability is expected to accompany the transition. New, sustainable parts of the economy will emerge from small niches. From there, they will slowly but surely start changing markets. A sustainable start-up with an innovative concept and experimental technology will experience an uncertain initial phase, before scaling up and gradually gaining a stable foothold within a new market. At the same time, there will be activities, for example in the fossil energy industry, that will be phased out as a result of active government policy or competition. It is difficult to predict exactly which parts of the economy will prove to be obsolete and which niches will be successful, or exactly when the transition for each part

will take place. Therefore, the X-curve model and the transition perspective are not intended to be predictive, but to provide an insight into the mechanism underpinning large complex changes.

**Figure 2: X-curve of a transition: the dynamics of an iterative process of destabilisation, build-up and phase-out**



Original from Loorbach et al., 2017

The transition to a sustainable economy will partly happen 'by itself', driven by issues such as climate change and biodiversity loss. However, in part the transition will also require active direction from the government (Rli, 2019).

The financial sector too will not escape the dynamics of destabilisation, build-up and phase-out. Simply optimising existing ways of working will not go far enough; a new financial system will eventually be needed. This will have to be a system that not only revolves around financial value, but also focuses on contributing to sustainable development (see, for example, Loorbach et al., 2020).



## 2 AVAILABILITY OF MONEY: RELATIONSHIP BETWEEN SUPPLY AND DEMAND

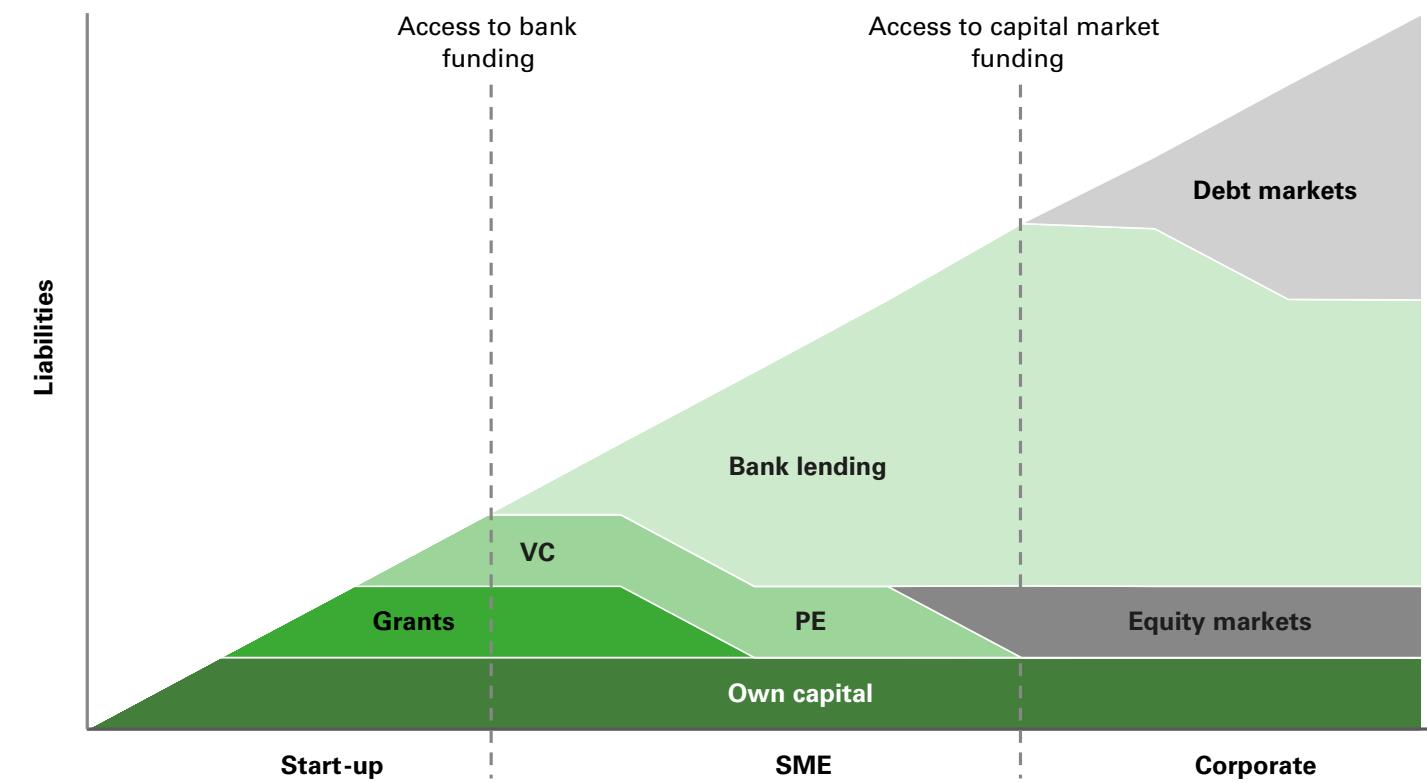
### Different forms of finance for sustainability

To become sustainable, companies and projects need money – to insulate their premises, install solar panels or acquire a new machine that can process recycled raw materials, for example.

The availability of money depends on numerous factors. For instance, a provider of finance will want to know what (technological) risks apply, how long the funds are needed for and what the expected returns are. From the lender's perspective, therefore, it is all about risks, terms and returns. In turn, the party applying for funding will want to know what fees the lender will charge or what terms it will apply.

Figure 3 shows what kind of finance companies can attract at different stages. Needless to say, this is a rather simplified picture. The rising diagonal line indicates that larger, established firms can attract large volumes of funding more easily than new entrants and smaller firms.

**Figure 3: Financing opportunities for companies, according to stage of development. Stylised representation of a mature and innovation-friendly financing landscape**



Source: Oliver Wyman (2017)

Besides their own funds (e.g. savings or profits from their own business) and grants (from the government or a charitable organisation), companies often also require private funding. Various forms of private finance are available on the financial markets (represented in Figure 3 by shades of green and grey):



- risk capital (venture capital and private equity);
- bank loans;
- share capital (equity market) and/or corporate bonds.

### *Risk capital for innovative projects*

Innovative projects entail all manner of risks, but, if successful, they can also generate high returns. In the main these are projects carried out by young companies working with a technology that has not been used before, such as an in-roof solar system where the solar panels are integrated into the roof. Companies embarking on such an innovative project still have little revenue of their own and therefore try to raise funds from external lenders. The company can then grow in a short space of time and make substantial profits if the technology proves successful. However, it can also quickly go bankrupt if it does not.

Risk capital providers focus specifically on this type of finance.<sup>44</sup> They usually have considerable technological know-how in house, allowing them to assess young companies properly. Such providers often also receive shares in exchange for their funding, which means they become co-owners.

<sup>44</sup> Such providers include angel investors (wealthy individuals who invest their own money in companies), venture capital funds (funds that raise money from companies and financial institutions to invest in innovations with a high risk-return profile) or corporate venturing funds (large companies that invest their money through a fund in innovations of start-ups and growth companies). Young companies can also raise high-risk capital through crowdfunding or charitable organisations. Occasionally, risk capital is also obtained from financial institutions such as pension funds and insurers, which normally invest conservatively. In some cases they choose to invest a small portion of their portfolio more riskily. Overall, however, the volume of risk capital obtained from all these different parties is limited.

In many cases it is a consortium of companies that provides the money, rather than one party on its own.

### *Loans for proven sustainable concepts*

Most sustainable economic activities for which funding is sought use proven technology. Take SMEs that are keen to make their existing production line more sustainable, or a steel processor that wants to start making circular products using a machine developed by others, for example.

Although they are using proven technology, risks still apply – relating, for example, to the payback time and/or the market for the products made on the new production line. However, the overall risks are lower than with innovative projects. Consequently, companies in need of funding for proven concepts can obtain loans not only from risk capital providers, but also from banks. Banks look at the company's existing income and assess whether it can provide collateral for the loan.

### *Publicly traded shares and corporate bonds for large companies*

Larger SMEs may also opt for an IPO to raise money for sustainable activities designed to further grow the business. In many cases the company will already have solid revenues and profits at the time of flotation. After the IPO, anyone who wants to can acquire shares in the company. Companies that already trade some of their shares on the stock exchange may choose to issue additional shares to raise funds. Furthermore, large companies with stable revenues may opt to issue corporate bonds. These are loans to which not only banks, but also other



parties on the financial markets can subscribe. Corporate bonds are similar to shares, but in this case the party providing the money is not buying a stake in the company. Instead, the loan is repaid after a certain time, plus an agreed fee (interest).

#### **Benefits of interim refinancing for capital-intensive sustainability projects**

Economic activities aimed at making the economy more sustainable tend to go through different stages of development, each with its own risk profile. It is important that the form and source of the finance at any particular moment are appropriate to the stage of development. This can be ensured through refinancing. When it comes to building renewable energy infrastructure, for example, the total investment required and the risks are highest during the development and construction phases. However, once the project reaches the operational phase and starts generating revenue, the risks decrease. The project therefore no longer needs to be financed with costly risk capital. To reduce the cost of capital, the project can be refinanced, by means of cheaper loans for example. Flexible refinancing can bring down the overall cost of a capital-intensive sustainability project significantly. Moreover, refinancing frees up (risk) capital for new projects. It also allows more parties and more forms of finance to contribute to the transition.

#### **Different funding providers**

In this advisory report we distinguish – within the financial sector – between asset managers, banks, pension funds and insurers. At first glance, these parties each have a distinct profile. However, they can all play a role in offering the forms of finance described above (risk capital, loans and share capital and/or corporate bonds).

Banks are the main financiers of Dutch businesses, although their share is declining (CBS, 2021). The principal form of bank finance is the bank loan. The risks banks are allowed to take when issuing loans are highly regulated. As a result, they mainly lend to medium-sized, mature companies with a proven business model. Banks employ a medium-term horizon of several years for their funding operations and are therefore not aiming to generate returns as quickly as venture capital funds, although they do target a faster return than institutional investors (pension funds and insurers).

Pension funds and insurers have large sums of money at their disposal and have to invest it for a specific purpose. Both parties are important potential sources of capital in the Netherlands. Pension funds have about €1,500 billion in invested assets and insurers around €450 billion. Dutch pension funds in particular, viewed collectively, are a major international player in both absolute and relative terms. Nevertheless, only a modest proportion of these assets are invested in the Netherlands.

Finally, there is a broad group of asset managers with highly diverse characteristics. This group manages its own money or money from wealthy

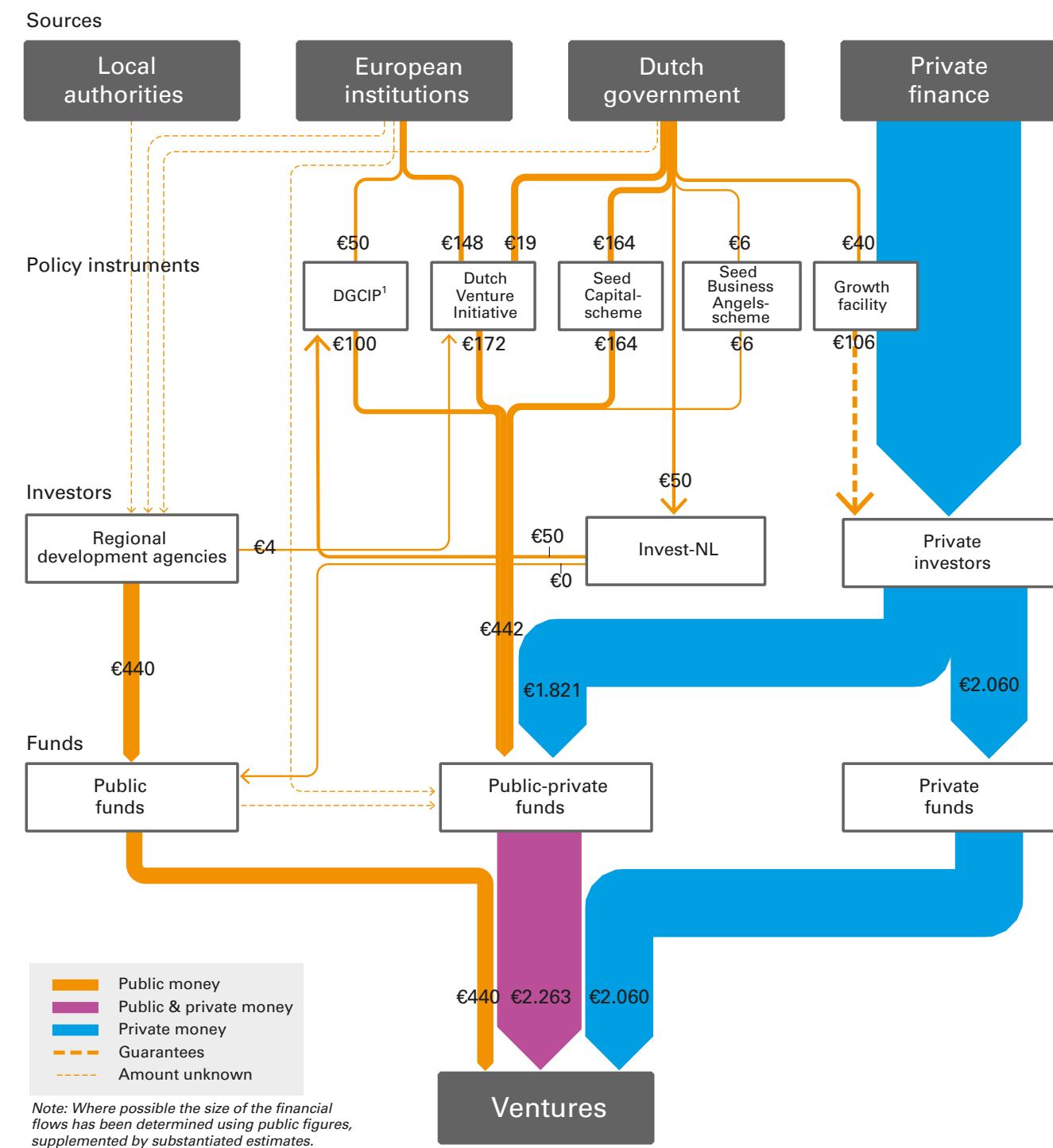


families, but also money from pension funds and insurers who choose to invest a portion of their premiums through these parties.<sup>45</sup>

### Parties and financial flows on the complex risk capital market

In recent years public parties have become increasingly involved in the Dutch risk capital market. A multitude of national and regional schemes and funds have emerged. Roughly a fifth of all risk capital now originates from public sources (Eveleens & Vogelaar, 2021). RDAs are actually involved in 45% of all venture capital investments in the Netherlands (Buck Consultants International, 2022). The flow model below shows how public and private flows of funds are intertwined.

**Figure 4: Financial flows for risk capital in the Netherlands, 2014-2019  
(in millions of euros)**



45 Insurers and pension funds often have separate administration organisations to manage premium income. These administration organisations are also essentially asset managers. Sometimes they opt to have some of the money managed by external asset managers.

Source: Eveleens & Vogelaar (2021)

Design: Kate Snow Design | ESB

### 3 EXPOSURE TO SUSTAINABILITY RISKS

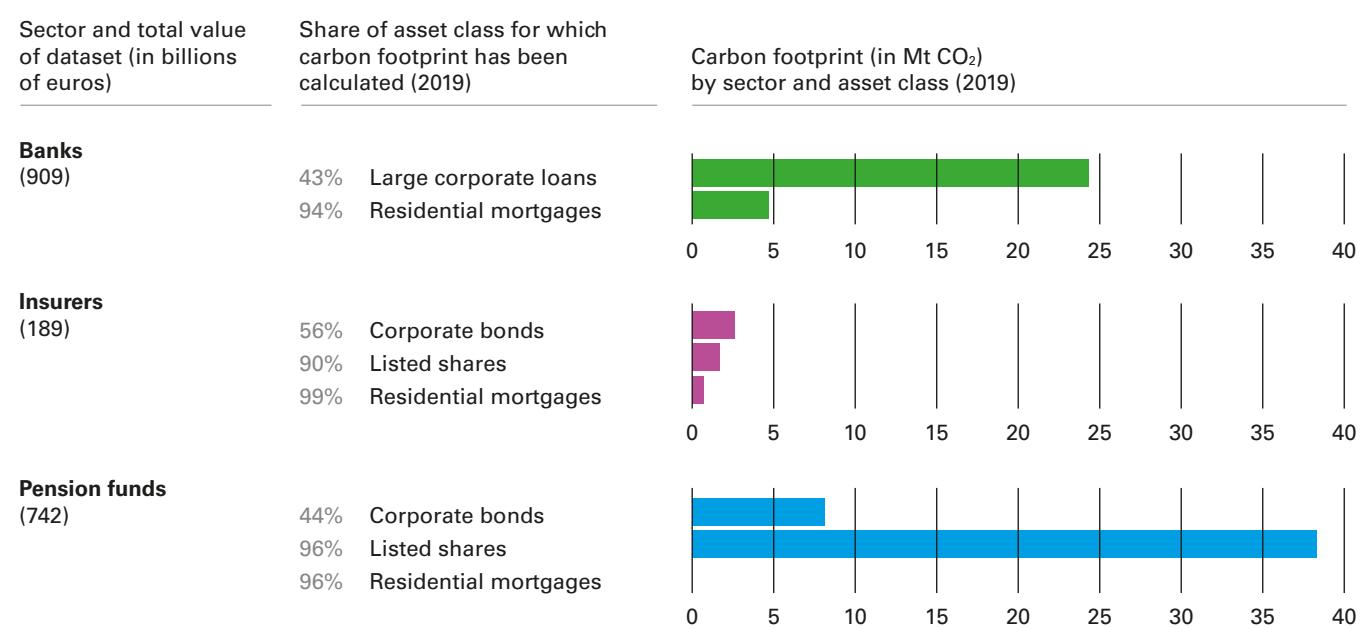
The Dutch financial sector has a substantial global footprint. For example, Dutch financial institutions currently provide €510 billion in finance to companies with a high or very high dependence on ecosystem services, such as soil fertility, water quality, pest management, timber and crops.

These companies account for around 36% of the total investment portfolio in the Netherlands (DNB & PBL, 2020). Loss of ecosystem services would disrupt the business processes at these companies and lead to financial losses. Thus, financial institutions that have lent a large proportion of their capital to these sectors have a relatively high exposure to transition risks. After all, when the companies in question have to be phased out, this capital will evaporate.

Globally, the Dutch financial sector also has €96 billion outstanding in loans to companies involved in environmental controversies and the damaging of ecosystem services and biodiversity (DNB & PBL, 2020). This part of the Dutch investment portfolio is associated with significant transition risks too. In this respect, we should also mention the €97 billion that Dutch financial institutions have invested in deforestation-related activities that carry an increased reputational risk.

Furthermore, the globally financed carbon footprint of the Dutch financial sector in 2019 came to at least 82 Mt (DNB, 2021c). This is equivalent to 45% of our total national emissions in the same year (CBS, 2020).<sup>46</sup> The asset classes with the largest contribution to the financed carbon footprint were listed shares of pension funds (38 Mt) and large corporate loans of banks (25 Mt) (see Figure 5). Moreover, only 43% of the latter asset class is included in the calculations.

**Figure 5: Carbon footprint of Dutch financial institutions, by sector and asset class**



Source: DNB (2021c)

<sup>46</sup> This comparison is for illustrative purposes only. Financial institutions do not finance 45% of Dutch emissions. After all, they also fund activities abroad.



Major investments are needed to reduce exposure to sustainability risks and seize opportunities presented by the sustainable economy. There are many different estimates at national and international level on the amount of investment needed (the funding gap).

Globally, the biodiversity funding gap stands at roughly \$598-824 billion per year up to 2030 (The Nature Conservancy, 2020) and \$4.1 trillion up to 2050 (UNEP, 2021). It is estimated that investments in 'nature-based solutions'<sup>47</sup> – currently \$133 billion a year – at least need to triple by 2030 and quadruple by 2050. This is necessary to meet climate, biodiversity and land degradation targets. The vast majority of funding currently still originates from public sources (86%) (UNEP, 2021).

Global investment in climate mitigation has grown strongly and has now (2019-2020) reached a level of around \$571 billion a year (Climate Policy Initiative, 2021). According to the IPCC, worldwide investment in this area must continue to grow by a factor of three to six. In Europe funding flows need to increase two- to fourfold (UNEP, 2022).

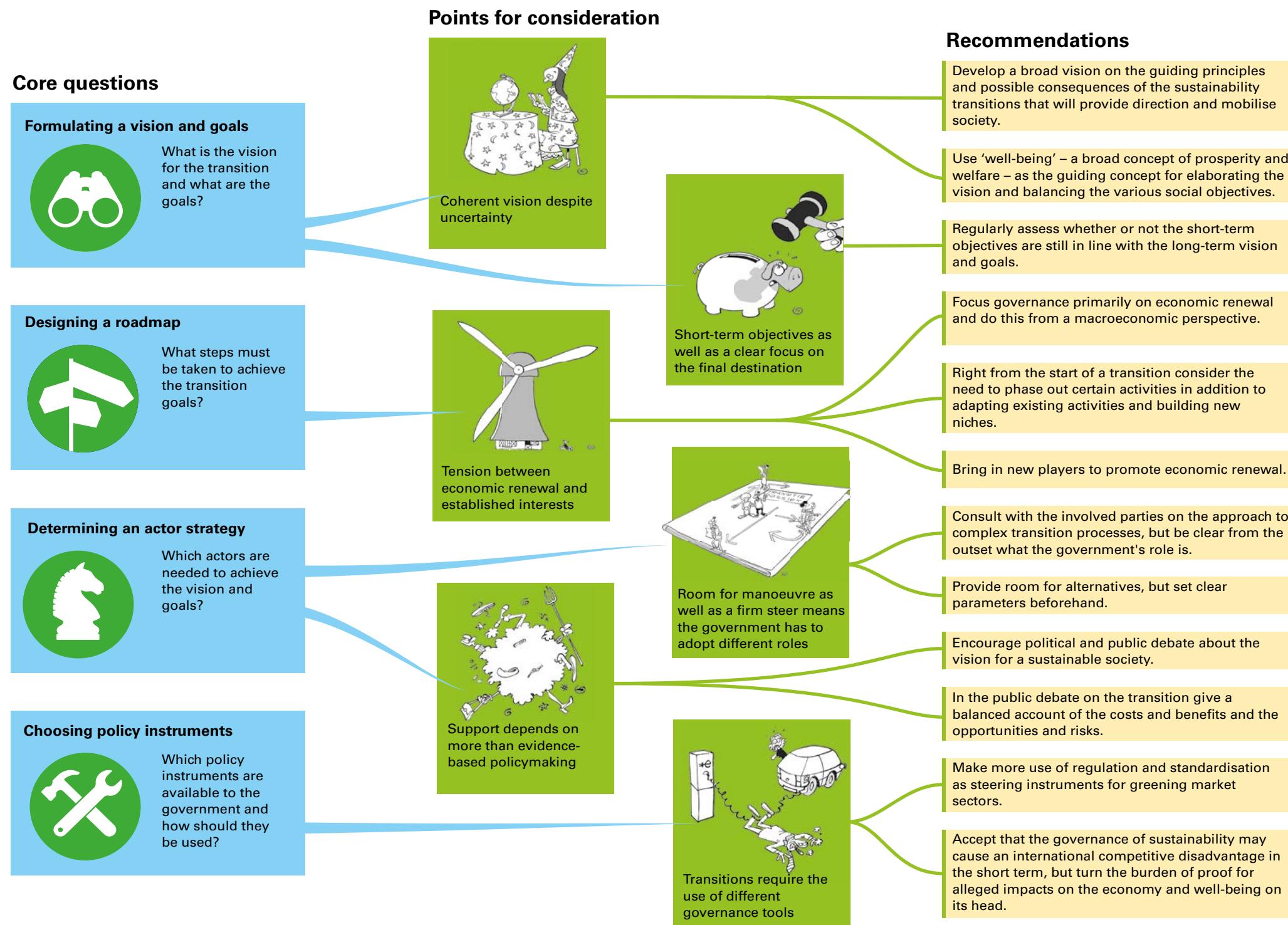
The European Commission provides estimates of some of the Netherlands' environmental investment requirements. In the case of biodiversity and ecosystems, an estimated €903 million per year is needed just to implement the Habitats Directive, which covers Natura 2000 sites. This does not include the costs for unprotected areas and any additional protection and

restoration measures that will follow from the Biodiversity Strategy for 2030, which aims to improve the protection and restoration of nature. Recycling waste and creating a circular economy will require an estimated €61 million in additional funding per year between 2021 and 2027. This amount does not take into account the investments needed for major waste streams such as plastics, textiles and furniture or circularity and waste prevention in the wider economy. In the area of water management an additional sum in the region of €480 million per year will be needed up to 2030, largely (95%) for wastewater. This does not include costs associated with the Sixth Water Framework Directive and the Floods Directive (EC, 2022).

<sup>47</sup> This involves using natural systems to combat climate change and adaptation, as well as biodiversity loss. Take the creation of wetlands to address the risk of flooding while creating more space for nature, for example.



# 4 SUMMARY OF RLI ADVISORY REPORT 'TOWARDS A SUSTAINABLE ECONOMY' (2019)



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# APPENDICES

# RESPONSIBILITY AND ACKNOWLEDGEMENT

## **Composition of the Council committee**

Drs. J.A. (Jeanet) van Antwerpen, Council member Rli and chair of the committee

Drs. P. (Pallas) Agterberg, Council member Rli

P. (Peter) Blom, external committee member (CommonsCapital, previously Triodos Bank)

Drs E.W. (Eloy) Lindeijer, external committee member (independent consultant, previously PGGM)

## **Project team**

Drs. ing. J. (Joris) Stok, BMC, project manager

R.F. (Robert) Ewing MSc, project staff member

Ir. F.W. (Folmer) de Haan, project staff member

M. (Mathijs) Veenkant Msc, project staff member from September 2022

## **Consultees**

Michiel van den Akker, AFM

Ties Ammerlaan, Ministerie van Financiën

Wim Bartels, Deloitte

Arnoud Boot, Universiteit van Amsterdam

Michiel Boots, Ministerie van Economische Zaken en Klimaat  
Wido van den Bosch, Brink Industrial  
Nathalie Boucquey, Federale Raad voor Duurzame Ontwikkeling  
Guido Braam, Powered by Meeting  
Timo Brinkman, Verbond van Verzekeraars  
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## 2022

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Providing shelter: maximising the performance of housing associations. ['Onderdak bieden: sturen op prestaties van woningcorporaties']. May 2022 (Rli 2022/03)

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## 2021

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Hydrogen: the missing link. ['Waterstof: de ontbrekende schakel']. January 2021 (Rli 2021/01)

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Stop land subsidence in peat meadow areas: the 'Green Heart' area as an example. ['Stop bodemdaling in veenweidegebieden: Het Groene Hart als voorbeeld']. September 2020 (Rli 2020/05)

Green Recovery. ['Groen uit de crisis']. July 2020 (Rli 2020/04)



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['Verzet de wissel: naar beter internationaal reizigersvervoer per trein'].  
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February 2020 (Rli 2020/01)

## 2019

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(Rli 2019/05)

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['Waardevol toerisme: onze leefomgeving verdient het']. September 2019  
(Rli 2019/04)

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['Europees Landbouwbeleid: inzetten op kringlooplandbouw']. May 2019  
(Rli 2019/03)

Aviation Policy: A New Approach Path. ['Luchtvaartbeleid: een nieuwe aanvliegroute']. April 2019 (Rli 2019/02)

The Sum of the Parts: Converging National and Regional Challenges.  
['De som der delen: verkenning samenvallende opgaven in de regio'].  
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**Original title**

Financiering in transitie; naar een actieve rol van de financiële sector in een duurzame economie

**Copy editing (Dutch version)**

Saskia van As, Tekstkantoor van As, Amsterdam, The Netherlands

**Infographics**

Frédérik Ruys, Vizualism, Utrecht, The Netherlands (Page 8)

Frédérik Ruys, Vizualism, Utrecht, The Netherlands en Gerrit de Jager, Amsterdam, The Netherlands (Page 55)

**Photo credits**

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Page 30: Berlinda van Dam / ANP / Hollandse Hoogte

Page 38: Sandra Uittenbogaart / ANP

Page 40: Shutterstock

**Graphic design**

Jenneke Drupsteen, Graphic Design, The Hague, The Netherlands

**Publication Rli 2022/05**

December 2022

**Translation**

Livewords/Balance, Amstelveen-Maastricht, The Netherlands

**Preferred citation**

Council for the Environment and Infrastructure (2022). Finance in transition; towards an active role for the financial sector in a sustainable economy. The Hague.

ISBN 978-90-8513-061-1

NUR740

