Sustainable finance:

Are there any constraints from the angle of supervision, financial rules and regulations, and government policy? SUSTAINABLE FINANCE PLATFORM

Constraints and Incentives Working Group

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This report is a publication of the working group Constraints and Incentives of the Sustainable Finance Platform¹. The working group is chaired by DNB.

¹ The Sustainable Finance Platform is a cooperative venture of De Nederlandsche Bank (chair), the Dutch Banking Association, the Dutch Association of Insurers, the Federation of the Dutch Pension Funds, the Dutch Fund and Asset Management Association, the Netherlands Authority for the Financial Markets, the Ministry of Finance, the Ministry of Economics and Climate, and the Sustainable Finance Lab. The aim of this platform, set up by DNB in 2016, is to promote and encourage a dialogue on sustainable finance in the financial sector.

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Summary

Motivation and background

The number of global investments being made is insufficient to achieve the goals of the Paris climate agreement and the UN sustainable development goals. A working group of the Sustainable Finance Platform, chaired by De Nederlandsche Bank (DNB), has now identified and analysed to what extent general government policies, financial supervision or regulations are standing in the way of achieving these targets. The guiding principle for the working group is to identify both the real and the perceived constraints. This analysis focuses mainly on the energy transition and climate change as as this is the area where the most knowledge and experience was gained in the past years.

What is sustainable finance?

Sustainable finance can be broadly defined as all funding that contributes towards promoting a sustainable economy. Roughly speaking, sustainable finance can be classified in three ways: the theme of sustainability to which the funding relates; the degree of sustainability of the project or company invested in, and the degree to which sustainability factors are included in investment decisions.

Findings

The main reason why insufficient sustainable investments are being made is that investors often find the risk/return profile of these investments insufficiently attractive. In addition to this, the number of financially attractive sustainable investment opportunities is too low. There are two main factors that strongly influence sustainable investment returns.

1) Government policies play a key role in determining the relative attractiveness of sustainable investments, and consequently in the risk/return considerations made by financial institutions. Financial institutions consider the lack of consistent, long-term and detailed sustainability policies developed by the Dutch and international governments to be among the main reasons why sustainable investments are not sufficiently attractive. Institutions are, however, perceiving increasingly clear-cut government policies in the area of the energy transition, particularly in the Netherlands. Government policies on other

- sustainability themes like biodiversity, land use and the circular economy, however, leave a lot to be desired in the opinion of the institutions.
- 2) The early stage of development of a part of the sustainable finance market. In order to boost the sustainability of the economy, investments in innovative technologies and processes are required. These investments are characterised by high risks, the absence of a track record, and their small scale and limited liquidity. In addition, there is a qualitative mismatch between the demand for funding from the companies and projects on the one hand and the supply of capital by financial institutions on the other. There also is a lack of information on sustainability. Moreover, including such information in investment decisions is often accompanied by high costs. The work of the EU on disclosures and taxonomy, and the efforts of the FSB Taskforce on Climate-related Financial Disclosures are therefore very welcome.

We should add that these findings are particularly relevant for small, new, innovative companies and projects: sustainable but high risk and often financed by means of private equity or project financing. For financial institutions, this concerns only a small part of their balance sheets, however. The problem of improving the sustainability of the economy is much wider and touches on virtually all parts of the economy, and therefore also on large parts of the balance sheets of financial institutions.

The relative attractiveness of sustainable finance and the two factors referred to above also include aspects from the perspective of supervision or financial regulations.

- The part of the sustainable finance market that is characterised by high risks and limited liquidity consequently also carries higher capital and liquidity requirements. DNB is not inclined to break the pattern of 'increased risk, more capital/liquidity' as this would mean that financial institutions will maintain insufficient buffers. Moreover, this concerns only a part of the balance sheets of financial institutions.
- It remains to be seen whether the risks of sustainable and non-sustainable finance are sufficiently clear at this moment in time. The business models of carbon-intensive enterprises may for instance come under pressure when an energy transition takes place. Financial institutions and supervisors should include sustainability risks in their risk analyses more than they do now. This

- requires better knowledge of the theme, both in the financial sector and at the supervisory authorities.
- Some institutions see market value as an obstacle, as the current market values would insufficiently reflect long-term developments like the energy transition. Others, including De Nederlandsche Bank (DNB), do not perceive market value to be a problem as in their opinion it does in fact reflect accurate values based on all the information available nowadays.
- Institutions have indicated that there are too few sustainable companies and projects to make above average investments and keep their portfolios diversified at the same time. Addressing the lack of investment opportunities is not a problem of financial regulations, which are stimulating diversification as diversification means sensible risk management but a matter of stimulating more sustainable companies and projects to invest in.

In addition to the importance of improving the supply of information and risk management, which may require a review of rules and regulations, there seem to be not other reasons for adjusting supervisory frameworks or financial regulations.

1. Introduction

The sustainable development goals of the United Nations and Paris Climate Agreement objectives have put sustainability firmly on the national and international agenda. Both groups of goals require significant investments in which the financial sector plays an unmissable role. Article 2.1.c of the Paris Climate Agreement even explicitly states that in order for the agreement to be successful, the financial capital flows must be tuned to the path towards creating a climate neutral economy. To date, not enough of these investments are being made, however. According to the European Commission, the annual investment gap in Europe related to achieving the EU's 2030 energy and climate goals totals EUR 180 billion. For the Netherlands, the McKinsey consultancy group estimates the additional investments required between 2020 and 2040 to amount to EUR 10 billion.²

Sustainability is high on the agenda at DNB.³ DNB seeks to safeguard financial stability and thus contribute to long-term sustainable prosperity. Prosperity that leads to ecological damage, puts social relationships in a country under pressure, or is built on financial bubbles is unsustainable in the long run. Sustainable prosperity benefits from a sustainable financial sector: a sector in which all stakeholders have embedded sustainable development into their policies, and are transparent about their sustainability efforts. A balanced consideration of interests is key in many activities undertaken by financial institutions.⁴

In view of the importance that DNB attaches to the sustainability theme and the sizeable national investment requirements, the Dutch central bank and supervisor took the initiative to establish a national Sustainable Finance Platform. This cooperative venture brings together the Dutch financial sector, the government and the supervisory authorities to find ways of preventing or overcoming constraints for sustainable funding and to boost sustainability by working together.

As part of the Platform, a working group was formed with the objective of investigating possible constraints or incentives on the part of supervision or financial rules and regulations. DNB established and chairs the working group. Its establishment was prompted by information that DNB received from institutions that sometimes feel that supervision or specific financial regulations

² Accelerating the energy transition: cost or opportunity? (McKinsey, 2017).

³ DNB Annual Report 2016, DNB Supervisory Strategy 2018-2022.

⁴ DNB encourages the financial sector to embrace sustainability. (Pensioen Doc, 2016).

hamper them in implementing their financial sustainability policies. This working group is intended to create a dialogue with the sector on this subject. Our guiding principle is to identify both real and perceived constraints and to resolve these constraints where possible.

In the autumn of 2016, the working group, whose members represent the financial sector and the government,⁵ started with an inventory among its members. The results were then discussed in a broader workshop, with input from representatives of the OECD, the Sustainable Finance Lab, the Association of Investors for Sustainable Development (VBDO), and the UN Principles for Responsible Investment. This culminated in an interim report for which a public consultation round was held in the summer of 2017. Responses from 10 parties were received. The Annex to this report includes an anonymised and at some points summarised overview of the response to the consultation and an overview of the original constraints identified by the members of the working group.

The draft final report below explores the main real and perceived constraints experienced by financial institutions. The report reflects the interviews held and the inventory made. It aims to provide a summary of the main real and perceived constraints. The analysis focuses mainly on energy transition and climate change as these two areas have commanded the most attention from the sector and research has emphasised these two areas.

The report is structured as follows. Firstly, we will briefly explain the role of the financial sector in society, emphasising the risk/return principle. Secondly, we will briefly highlight the different definitions of sustainable finance. When discussing the real and perceived constraints, we will occasionally refer to the risk/return considerations and to the difficulty of defining sustainability. We will then discuss the two main factors at the root of faltering sustainable investments, being government policies and the fact that the sustainable finance market is still in full development. And last but not least, the main issues from the perspective of supervision and financial regulations will be discussed.

⁶ Responses were received from: The Dutch Association of Insurers, Triodos Bank, VBDO, Volksbank, Kempen Asset Management, Aegon Asset Management, Sustainable Finance Lab, Eumedion, Dufas, the Dutch Ministry of Finance, and the Federation of the Dutch Pension Funds.

⁵ See the Annex for the names of the members of the working group.

2. The role of the financial sector in society

The financial sector is often described as the lubricant for the economy. The financial sector enables the economy to function. Financial institutions for instance provide a part of the infrastructure necessary for efficient operation of the payment system. In addition, the financial sector enables the corporate sector to make investments in order to offer more or better products and services.

Mobilising and allocating financial resources is one of the main functions of the financial sector. Financial institutions promise their customers or members whose financial assets they collect a specific return, but the institutions themselves determine how they invest the entrusted funds. The institutions are responsible for ensuring that their investments yield the promised return, thereby taking on the risk that their investments yield less than the envisaged return.

In every investment they make, financial institutions weigh up risk and return: how much risk does this investment entail and what is my reward? If investments classify as high risk, investors often want higher rewards in return. These risk and return considerations play an important role in the financial sector, and are also at play in the interpretation and elaboration of the identified constraints discussed below.

Institutions base their investment decisions on the existing legal frameworks, e.g. minimum required financial buffers and the risks that their stakeholders are prepared to accept. As a buffer for expected and unexpected losses, financial institutions are required to hold own funds (capital requirements). Maintaining a buffer of own funds enables financial institutions to continue living up to their obligations to their customers or members if their investments lead to losses. In addition to maintaining the required buffers, it is also important for financial institutions to factor in the interests and preferences of their customers, members and shareholders. Some bank customers and some pension fund members want their money to be invested responsibly. This 'impact' element then plays a role in investment decisions. As the prudential supervisor in the Netherlands, DNB ensures that institutions maintain sufficient buffers, that their investment decisions are based on a balanced consideration of interests, and that they manage their risk exposure adequately. This does not mean that DNB

⁷ These sections are partly based on the report entitled 'Finance and Society: Restoring the Balance' published by The Netherlands Scientific Council for Government Policy.

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wants to take the driver's seat: investment decisions are and will remain the institutions' responsibility.

3. What is sustainable finance?

Sustainable finance can be broadly defined as all funding that contributes towards promoting a sustainable economy, specifically the climate goals of the Paris Agreement and the United Nations' sustainable development goals. The European Commission's Sustainable Finance Action Plan defines sustainable finance as the process where environmental and social factors are included in investment decisions. Although these two definitions provide a conceptual picture and are thus enlightening, they are still difficult to use in practice, as there is no standardisation of which forms of financing are covered or not covered by these definitions. It is up to the financial institutions themselves to determine which form of financing they consider to be sustainable, which causes (or may cause) wide variations. This lack of unambiguous and usable definitions and standards is a constraint in itself, to which we will return later in the report.

Roughly three different ways of further classifying sustainable finance can be used. An understanding of these different components of sustainable finance helps in understanding the identified constraints. First, you can pinpoint the sustainability theme that the funding relates to (Figure 1). Is it the environmental, social, or governance theme? The environment can for instance be broken down into climate or otherwise environmentally related.

⁸ Action Plan: Financing Sustainable Growth (European Commission, 2018).

Environmental

Climate change adaptation

Climate

Climate

Green

Socioenvironmental

Social

Economic

Governance

Governance

FIGURE 1: DIFFERENT SUSTAINABILITY THEMES

Source: UNEP, HLEG SF

A second criterion that can be used is the degree of sustainability of the project or company invested in. This may differ according to the sustainability theme. Based on the energy transition (mitigation of climate change) for instance, some companies may be viewed as carbon-intensive or 'brown', e.g. an energy plant that only generates energy based on coal, while other companies may be earmarked as sustainable or 'green', e.g. a solar energy producer. These are two ends of a broad spectrum of sustainability, however. There are different shades of green and brown. Take car manufacturers for instance. Some of them produce fossil-fuel driven cars only (company 1 in Figure 2), which emit carbon, making these manufacturers non-sustainable or 'brown' companies at heart. Some of these car manufacturers, however, have tangible plans to start producing fewer fossil-fuel driven cars and more electric cars (company 2 in Figure 2), making them 'greener' than their competitors without such plans. They are still less 'green' than manufacturers of electric cars only, however (Company 3 in Figure 2). In short, in addition to determining into which theme of sustainability investments can be classified, they also differ according to the degree of sustainability (from dark brown to dark green) of the project or company that is being financed. Constraints that apply to one shade of green or brown, may not apply to other shades of these colours.

The whole thing becomes even more complicated if an institution's sustainable financing activities involve more than one theme. The electric cars manufacturer may after all be earmarked as a green or sustainable company from the perspective of energy transition, but if the same company does not manage the precious minerals required for the production of such cars responsibly, it will score low on sustainability in the 'Other than environmentally related' category.

FIGURE 2: SUSTAINABLE FINANCE: ENERGY TRANSITION THEME: FROM BROWN TO GREEN TO DARK GREEN.



Source: DNB

And last but not least, investments can be differentiated according to the extent to which sustainability factors are included in investment decisions made by financial institutions. Here, too, there is a spectrum. Some banks and investors for instance only apply an exclusion policy with respect to arms producers or coal plants, based on social or climate considerations. Other banks and investors apply sustainability scores based on sustainability information that they purchase or retrieve from the companies concerned, and exclude all companies that do not comply with a minimum sustainability score. Other banks and investors again manage their investments and loans according to these sustainability indicators, whereby they make targeted extra investments in sustainable companies, relative to non-sustainable companies.

DNB's research report 'Sustainable Investment in the Dutch pensions sector', differentiates between four different forms of sustainable investment: limited; active; intensive, and integrated. Figure 3 below depicts this in more detail.

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FIGURE 3: FORMS OF SUSTAINABLE INVESTMENT

Five categories of sustainable investment, broken down according to intensity	Types of sustainable investment under this category
Funds included in the report which have no or no clear data about their sustainability policy.	Not known, no explanation in the annual report
Funds that have a limited sustainability policy.	 No established CSR policy No consistent application of principles Limited exclusion policy
Funds that have an active sustainability policy and integrate ESG factors in investment policy. Policy is implemented partly through passive management.	 More or less established CSR policy Application of principles Exclusion policy Engagement Voting (shareholder meetings) Best-in-class selection
Funds that have a more intensive sustainability policy, in which the implementation also involves active management and in certain cases ongoing consideration of sustainability choices.	 More far-reaching CSR policy Application of principles Exclusion policy Engagement Voting (shareholder meetings) Best-in-class selection

Source: DNB

4. Findings

The <u>main reason why</u> insufficient sustainable investments are being made is that the risk/return profile of these investments are too often insufficiently attractive for investors. The risks associated with these investments are too high, the returns are too low or a combination of the two. In addition to this, there are too few financially attractive sustainable investment opportunities.

There are two important factors that strongly influence the return on sustainable investments: government policies and the early development stage of a part of the sustainable finance market. These two factors both carry all kinds of aspects from the perspective of supervision or financial regulations. The text below focuses mainly on climate-related investments as this is the area where the most knowledge and experience was gained in the past years. Institutions have, however, indicated that these two factors also apply to other aspects of sustainability, e.g. circularity, social issues, etc.

Government policy as a driver of return

The government plays an important role in how 'green' or 'brown' the economy is as a whole. As the financial sector as a whole finances the entire economy, the financial sector is polluting if the economy as a whole is polluting or 'brown'. If the government uses its policies to greenify the economy, the financial sector will follow suit. In other words, government policies play a key role in determining the relative attractiveness of sustainable investments, and the ensuing risk/return considerations made by financial institutions.

Financial institutions consider the lack of consistent, long-term and detailed sustainability policies developed by the Dutch and international governments to be one of the main reasons why sustainable investments are not sufficiently attractive. Currently, various polluting activities are condoned and profitable, which is why they are being financed. The lack of an adequate worldwide carbon price is among the main reasons why climate-related sustainable finance is having difficulty getting off the ground. In other sustainability themes like biodiversity and circular use of feedstocks, negative external factors are also insufficiently priced. In addition, governments regularly 'change the rules while the game is on'.

A good example of a negative influence of government policy is the political climate surrounding solar energy in Spain. In 2010, Spain was one of the worldwide leaders in the area of solar energy, partly owing to generous government subsidies that promised a minimum return for investing companies.

The amounts of the subsidies were raised significantly every year, which proved to be financially unsustainable also in the light of the economic crisis in Spain. The government then decided to axe the subsidies. It did so partly with retrospective effect, causing a large number of existing companies and projects to go bankrupt with all the ensuing consequences for their investors. Many of them have now become wary of investing in solar energy in Spain, and have become more careful in general when investing in projects that depend on government subsidies, as governments do not shy away from withdrawing their subsidies midway.

Institutions are, however, perceiving increasingly clear-cut government policies in the area of energy transition, particularly in the Netherlands. The current Dutch government announced a considerable number of measures in the area of energy transition in its coalition agreement. A minimum carbon price will for instance be introduced for electricity generation, coal power plants will be closed by 2030 at the latest, and the tax system will be greenified. In addition, Invest-NL, a Dutch financing and development institution with own funds of EUR 2.5 billion, will be established.

A good example that underlines the positive impact of government policies for sustainable finance is the announced prohibition on the use of office space with an energy label lower than C after 2023. This new law will serve to prohibit a specific type of pollution. Offices that do not comply with this requirement by 1 January 2023 will have to close. This will help to greenify the economy and the financial sector, which finances a large proportion of office space in the Netherlands. The financial sector will also help to accelerate sustainability efforts in the Netherlands. The large Dutch banks will for instance no longer refinance office space with energy labels below C, unless there are plans in place to upgrade the energy label before the 2023 deadline. These risk management measures by the banks ensure that office greenification will accelerate, as otherwise these offices will no longer be financed.

These plans are currently being developed into a new Climate Agreement and a Climate Act. Partly owing to the efforts of the Sustainable Finance Platform, the financial sector is involved in the drafting of the agreement and the act. This gives the financial sector the opportunity to make the government aware of both the prevailing constraints and the envisaged incentives.

Financial institutions are taking a very positive view of the steps that the Dutch government is taking with respect to the energy transition. Nevertheless, institutions are still noticing some constraints with respect to government policy. Some examples of these constraints are:

- It is unclear whether rooftop solar panel installations should be classified as unmovable property. This is particularly relevant if the installations have a different owner from the owner of the building. The general rule is that after installation, the panels become the property of the owner of the building. This means that business premises costs will have to be paid, which means extra expenses.
- The Dutch Stimulation of Sustainable Energy Production (SDE+)
 government subsidy programme provides subsidies to those who are
 able to carry out a project at the least possible subsidy costs. Some
 financial institutions believe that the government should also take into
 account the long-term sustainability of the projects rather than
 considering price only.
- The double energy tax on electrical current stored temporarily in electric cars is a constraint.
- Topping up mortgage loans for sustainability measures counts as new financing. This means that advice costs are due and applicants will be income-tested. Currently an amount of EUR 9,000 is tax -xempted as financing costs to promote energy saving measures. It is unclear, however, if this tax exemption still applies if the mortgage loan is increased.
- Improving the sustainability of homes may lead to a higher property
 value as calculated for tax purposes. And such an increase will also push
 up imputed income from home ownership, the groundwater tax, and the
 municipal property tax.

In European countries other than the Netherlands, the situation on government measures with respect to the energy transition is less clear. In Poland for instance coal is still being subsidised, and the EU ETS carbon system still leaves a lot to be desired. Outside Europe, too, governments are still not doing enough to promote the sustainability of their economies. Fossil fuels are still being heavily subsidised across the globe. Aside from government policy pertaining to energy transition in the Netherlands, the Dutch government's policy on other sustainability themes also leaves a great deal to be desired in the opinion of many financial institutions. Think of biodiversity, land use and circular use of feedstocks for instance.

A market and companies in development

An important factor influencing the risk/return profile of sustainable finance is the fact that the market for sustainable finance and sustainable companies and projects is still in full development. The market for this type of finance has two important characteristics.

First of all, increasing the sustainability of the economy also requires investments in innovative technologies and processes. There currently is a qualitative mismatch between the demand for funding from companies and projects and the supply of capital by financial institutions:

- These are often high-risk investments. This is due to the fact that at the start of the transition it is unclear which technologies will be the 'winning' ones: will we be driving hydrogen-powered cars or electric cars for instance? Often various technologies are invested in and some of these investors will not recoup their investments. This may for instance concern the development of energy generation from renewable sources. Currently solar panels and wind turbines seem to be the 'winners', but heavy investments have also been made in energy generation from sewer water for instance, and these investments have proved to be unrecoverable.
- As investments in sustainable companies and projects are relatively risky, they are less attractive, in particular for pension funds, insurance companies and banks, which are tied to long-term statutory obligations. For these types of investments, venture capital often is the best form of financing. Venture capital is relatively scare in Europe as compared with the United States for instance. The EU is endeavouring to solve this problem in the medium term by means of the capital markets union. Government intervention like guarantees, may in the meantime help to solve this problem.
- In addition, this type of company is often small, meaning that investors
 can only invest small sums of money. Institutional investors like pension
 funds are, however, looking for scale in order to keep transaction costs
 low. Moreover, institutional investors are often looking for liquid,
 standardised financial products, while this type of company and project
 often require tailor-made work, which also implies high transaction costs
 (meaning that higher returns are required).

This first characteristic of the market for sustainable finance requires an important qualification. The above problems are particularly relevant for the group of small, new, innovative companies and projects, which are sustainable, but carry high risks. Based on the spectrum of brown (non-sustainable) to green (sustainable) projects described above, this constraint particularly applies to 'dark green' companies, which are often financed with private equity or project finance. For financial institutions, this concerns only a small part of their balance

sheets, however. The problem of improving the sustainability of the economy is much wider and touches on virtually all parts of the economy, and therefore also on large parts of the balance sheets of financial institutions. Innovation is of course also taking place at companies that have existed for some time, and at polluting ones. The above constraint is therefore not relevant for a pension fund's decision to invest in those companies within the energy sector that in the pension fund's opinion have the best plans to adjust their business model to the energy transition.

The second characteristic of the sustainable finance market is the lack of information on sustainability. For investors wanting to include energy transition in their investment decisions, it is for instance relevant that many companies do not report their carbon footprint, nor their plans for reducing it. This makes it difficult to include these factors in investment decisions. Including sustainability information in investment decisions is often accompanied by higher costs. Investors wanting to include sustainability in their decisions will incur extra costs. They must for instance free up an FTE to produce a sustainability analysis of a project or company, or sustainability data must be purchased. Asset managers often also demand high management fees from the asset owners in order to give due weight to sustainability factors.

Broadly speaking, there are no standards and definitions in place about what qualifies as sustainable and what does not. This is why both financial institutions and the Sustainable Finance Platform welcome the current work of the EU to create a taxonomy of the sustainability of financial assets. In addition to this, the revised Shareholders' Rights Directive (SRD2) includes additional requirements for transparency by institutional investors on sustainability factors such as the environment, climate, and human rights. If more, better and standardised information on sustainability becomes available, it will become easier and less expensive for financial institutions to include this information in their investment decisions.

Aspects of supervision and financial rules and regulations

These two factors also have aspects from the perspective of supervision and financial regulations, which we will set out below.

Capital and liquidity requirements

Capital requirements exist to protect customers, savers, and pensioners. Banks, pension funds and insurers maintain own funds in order to cushion both expected and unexpected losses in particular. The higher their risk exposure, the

more own funds they are required to maintain. This is to ensure that financial institutions are able to meet their obligations.

As explained above, innovation is needed to make the transition to a more sustainable economy, and a part of the market for sustainable finance is characterised by higher risks. These investments consequently demand higher capital requirements. Some institutions say that this is hampering them, but this is not perceived as a reason to abandon the principle of 'more risk, more capital'. Indeed, 'promotion' of sustainable investments by means of the prudential framework would mean that institutions may maintain buffers that are too low relative to their risk exposure. This increases the likelihood that financial institutions may at some point be unable to meet their obligations.

Financial institutions are also bound to liquidity requirements. These enable them to cushion withdrawals of deposits by customers and fluctuations in market funding. Although to a lesser extent, liquidity requirements also apply to insurers and pension funds, in order for them to meet their short-term liabilities such as payouts.

As explained above, sustainable investments sometimes include investments in non-listed companies, making these investments relatively illiquid. This should not hamper sustainable investments, however, especially not for financial institutions that have low risks of withdrawal, such as insurers and pension funds. Investments in illiquid assets, e.g. mortgage loans, should, however, not be a problem for banks either, as long as they ensure that they have sufficient suitable capital market financing.

We should emphasise again that higher capital requirements and lack of liquidity only play a role in a small part of the sustainable finance market, i.e. the dark green end of the sustainability spectrum. Pension funds often finance these companies and projects by means of private equity. The issue of improving sustainability, however, is much broader and touches upon large parts of the economy and the balance sheets of financial institutions. An increasing number of mainstream companies, which are often financed with public equity or corporate bonds, are also working on improving sustainability. These companies have often have a longer history, and manufacture more standardised and liquid financial products. For these companies and projects, the concerns relating to capital requirements and liquidity are less urgent. Several pension funds and insurers have indicated that they are thinking about ways of providing funding to more sustainable companies through their public equity or corporate bond portfolios.

We must also emphasise that prudential requirements, e.g. capital and liquidity requirements, do not differ in any way between sustainable and non-sustainable investments. The requirements revolve around the risk profiles of financial institutions or investments, and the related adequate management. More and more unambiguous government policies will make sustainable investments more attractive for financial institutions.

Risk management and market valuation

One may wonder whether the observation that a part of sustainable investments have a higher-risk profile is correct. If we indeed experience an energy transition, the business models of carbon-intensive companies will come under pressure. These companies may have sound financial ratios and predictable cash flows now, but how much longer will this be the case? Current risk management is often based on volatility, standard deviations and historical data series. Do these sufficiently reflect future risks?

In its recent research report on climate risks in the financial sector entitled *Waterproof?*, DNB calls attention to and urges institutions to step up their forward-looking risk management efforts. Hopefully, institutions may include future risks better by using scenario analyses and stress tests. DNB is currently developing its own transition test for the Dutch financial sector. This year it will also launch research into the quantification of risk differentials between 'green' and 'brown' financing.

DNB finds that more and more steps are being taken in the Netherlands to improve the management of climate risks in particular. There is a bank in the Netherlands for example that explicitly includes transition considerations in the credit applications from energy companies. These companies are required to have a carbon reduction strategy in place in order to qualify for funding. Other institutions are also working on climate risk management and have their own Climate Risks working group within the Sustainable Finance Platform to discuss their efforts. This working group has published a report on best practices earlier this year. Pension funds governed by the European IORPII Directive will also be confronted with the requirements related to the management of Environmental, Social and Governance risks. If future risks are weighed more heavily in investment decisions, this will also impact the allocation of capital.

An additional question that some institutions raised is whether the current valuation methods for companies are correct. Some institutions see market value as an obstacle, as this would induce short-term investment strategies, and because the current market values would insufficiently reflect long-term

developments like the energy transition. Others, including DNB, do not perceive market value as a problem as in their opinion it does reflect accurate values based on all the information available nowadays. This is because markets are very well able to discount long-term developments into today's value, providing they believe that this long-term development will indeed materialise. Take the market value of Tesla for instance. Despite the fact that Tesla is currently loss making and produces a small number of cars in comparison to Ford or General Motors for instance, these three companies in 2017 shortly had the same market value on the US stock market. Tesla's high stock market value is explained by the fact that current investors are expecting it to make large profits in the future. The expected profits are discounted in today's prices. In other words, Tesla's current stock market value reflects expected future profits. This means that investors actually do consider long-term developments. What is important is that technological developments, and government policies in particular, reaffirm the desired long- term developments. The clearer the transition paths are marked out, the better the markets will be able to price in long-term developments today.

The difference of opinion about market valuation is also clearly reflected in the final report of the EU High Level Expert Group on Sustainable Finance. DNB is highly if favour of market valuation as this is the best available method of translating future financial risks into current valuation. In order to ensure that sustainability is priced in better, it is important for governments to improve the sustainability of their economies. If governments were to formulate clear milestones and timelines, and announce concrete measures, financial markets respond immediately, which would even provide for an acceleration of the process. The real estate case described above is a good example of this.

Diversification, indices and 'in control' requirement

Pension funds are required to pursue investment policies that comply with the prudent person rule (Section 135 of the Dutch Pensions Act). The prudent person rule stimulates diversification of investments (Section 13 of the Pension Fund (Financial Assessment Framework) Decree). Institutions have indicated that there are too few sustainable companies and projects to make above average investments and diversify their investments at the same time. This lack of investment opportunities is not a problem caused by financial regulations such as the promotion of diversification - as diversification equals sensible risk

⁹ Financing a Sustainable European Economy, pages 56-58, (EU High Level Expert Group on Sustainable Finance, 2018).

management - but a matter of the government stimulating sustainable enterprises and projects, in order to expand the number of investment options.

An additional aspect is that of indices. Many pension funds prefer to invest passively by tracking broad market indices. These broad market indices often reflect the status quo of the equity markets, meaning that they reflect the global sustainability goals to a small extent only, i.e. to the extent that government policies and technological developments have made sustainability targets material today. Some institutional investors, however, want to include sustainability factors in their composition of market indices prompted either by societal reasons or risk/return motivations. As there are only a few broad sustainability indices available, pension funds believe this to be a constraint to further improving the sustainability of their investments.

Again, the problem is not rooted in regulations, but in the lack of passive sustainable investment options. If the market for sustainable finance matures, this problem will evaporate. The institutions therefore welcome the current work of the European Commission on improving transparency about how the current sustainable benchmarks are formed, and an analysis of how the current benchmarks comply with the Paris climate agreement. The institutions have also indicated that they are sometimes in the dark as to how suppliers of sustainable indices exactly include sustainability factors in their indices. Both for DNB and for the sector, it is therefore important to increase the knowledge of how sustainability can be incorporated in asset management and credit policies, and what is prudent in this respect and what is not. For this reason, too, work of the European Commission is heartily welcomed.

It should be noted that in one of the consultation rounds, pension funds reported that they get questions from DNB about their span of control when they want to switch to a more sustainable index, but that these questions are not or hardly asked when they track more traditional indices. 'In control' means that pension funds are aware of the movements in their investment portfolio, the risks that they are exposed to, and the total costs of portfolio management. When this was verified at DNB, it turned out that in the past few years DNB had never asked a question of this kind if a pension fund planned to switch to a more 'sustainable' benchmark. DNB is unfamiliar with this sentiment and is open to discuss it in order to remedy this perception.

Inconsistent communications from DNB

A recurring response heard from the sector is that DNB's communications to the sector are not always consistent. On the one hand, DNB publicly endorses

sustainability and climate risks, but the subject is hardly discussed in supervisory meetings.

DNB understands these sentiments. DNB's work in the area of sustainability and climate risks was originally thematically and project-oriented. The intention was to first build a knowledge base and explore the ways in which sustainability and climate risks are relevant for the supervisory mandate. DNB is currently working on further integration of climate risks in its operational supervision. Further integration and incorporation of climate risks in operational supervision should remedy the perceived problem of inconsistent communications.

Loan origination

This relates mainly to the social theme of sustainability. A European framework for loan origination by investment funds is currently being contemplated. Loan origination means that investment funds offer direct loans to borrowers. In one of its consultation rounds, ESMA indicated that it perceives risks in the offering of loan origination funds to retail investors. ESMA has expressed that it would be wise to allow retail investors to invest in these funds only if the fund's net asset value makes up less than a specified percentage of loan origination. Fund managers believe that such a constraint would hamper micro-credit and culture investment funds, which often engage in loan origination and are often attractive to retail investors. Some investors earmark investments in these funds as 'socially' sustainable.

Fair competition

The market abuse regulation and takeover regulations, often prohibit shareholders in many European countries from acting as one. The Netherlands and the United Kingdom give a different interpretation to these regulations, which often allows investors to make a common front. The Netherlands for instance has an organisation called *Eumedion*, which represents various groups of shareholders at annual general meetings. This also helps to increase the pressure on companies to continue greenifying their business. The lack of regulatory scope for such organisations in other European countries is hampering ongoing improvement of sustainability in those countries and consequently also presents an obstacle for Dutch financial institutions that have investments in these countries.

5. Conclusions

It is important for governmentsto develop consistent and future-proof sustainability policies that minimalise avoidable policy uncertainty. Specifically, more attention should be given to (i) pricing negative external factors, carbon emissions in particular, and (ii) developing policies in the area of social issues, circularity, and biodiversity.

In addition, more and better information needs to become available about the level of sustainability of companies and projects, to allow investors to better incorporate sustainability aspects in their investment decisions. The work of the EU on disclosures and taxonomy and the work of the FSB Taskforce on Climate-related Financial Disclosures is therefore very welcome.

It is also important that the risk analyses performed by institutions and supervisory authorities better incorporate the significance of sustainability risks. A growing number of institutions are working on incorporating these factors in their risk management. This also continues to occupy DNB, among other things by investigating how sustainability risks can be incorporated in operational supervision. In due course, this may take adjustments in the supervisory framework. The implementation of IORPII, which instructs pension funds to manage their ESG risks, marks an important step on the way to further developing sustainability risk management.

And last but not least, the financial sector and the supervisory authorities should expand their knowledge of how sustainability influences investments and how these factors can be acknowledged in a prudent way.

In addition to the importance of improving the supply of information and risk management, which may require a revision of rules and regulations, there seem to be no other reasons for adjusting supervisory frameworks or financial regulations.

Annex

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SUSTAINABLE FINANCE PLATFORM

Constraints and Incentives Working Group