Innovation and financial regulation:
opportunities and obstacles

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Innovation and regulation: opportunities and obstacles

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Contents

Summary and conclusions 4

1 Introduction 8

2 Trends in the financial sector and supervision 9

3 Opportunities and obstacles 13
3.1 Introduction 13
3.2 Activity-based supervision versus entity-based supervision 13
3.3 Supervising hybrid ecosystems 16
3.4 Harmonisation at the European level 19
3.5 Proportionality and efficiency of supervision 21
3.6 Room for experiments 23

Annex 26

Summary and conclusions

The far-reaching technological developments and the emergence of new players raise the question of whether financial regulation and supervision are sufficiently tailored to these changes. In a joint exploratory study, market participants and supervisory authorities have therefore identified the bottlenecks in the regulatory legal framework that arise in relation to innovation in the Dutch financial sector, and looked at possible improvements. Central to this study is the question of how the supervisory framework can continue to guarantee the objectives of financial supervision while allowing sufficient scope for innovation in the market. The report covers the main findings, but does not represent formal positions of the parties involved. The consultative group endorses the general conclusions of the report.[1] The insights form the basis for follow-up activities (see Box 1).

Driven by technology and market trends, the value chain of financial products and services is becoming increasingly unbundled and international. For example, financial services may be combined with other services on one single platform, creating hybrid forms of service, partly regulated and partly unregulated. Platforms, financial undertakings and non-financial corporations may be part of broader ecosystems comprising various partnership relationships.

The rapid advances in digitisation and platformisation will increase the role of Big Tech[2] companies in the financial sector. Current examples in the Netherlands are Apple Pay and Google Pay in the payment system. In the US, a Google Plex account will combine a bank account (a Citi bank account, for instance) with Google payment services and a personal budget planner as well as offers from retailers. Their data-driven revenue models enable Big Techs to pose stiff competition to established financial undertakings. Moreover, this is all taking place on a global playing field.

Main conclusions of the exploratory study and follow-up

I. A shift from entity-based regulations to activity-based regulations is not an option for supervision of financial soundness. However, Big Techs' activities must still be adequately regulated.

A frequently expressed idea to deal with the increasing diversity of market players and the unbundling of the value chain is to make legislation, regulations and supervision more activity-based. The optimal balance between entity-specific rules and activity-oriented rules is mainly determined by the objectives of supervision. Where financial stability and soundness of financial undertakings are paramount, entity-based regulations are imperative.

1 A consultative group comprising market participants and supervisory authorities has been set up for the exploratory study. See the Annex for its composition.
2 Big Techs are major corporations with an established technology platform. Well-known examples in the US include Amazon, Apple, Facebook, Google and Microsoft. See FSB (2019), Big Tech in finance: Market developments and potential financial stability implications - Financial Stability Board (fsb.org).

Apart from the solvency rules, the rules for sound operational management, for example, do leave scope for customisation, as long as this does not threaten the soundness of the institution or group. Effective supervision of the activities of Big Tech companies calls for a holistic and European approach, whereby the mix of entity-oriented rules and activity-oriented rules shifts towards entity-oriented rules, and perhaps even a tailored approach to Big Tech companies. European legislative initiatives such as the Digital Operational Resilience Act (DORA) and the Digital Markets Act (DMA) are steps in that direction.

II. Reinforcing oversight of ecosystems is advisable.
The emergence of hybrid ecosystems offers opportunities for customers of financial services and for the financial undertakings participating in these hybrid ecosystems, but it also creates risks. These risks can partly be addressed within the sectoral statutory legal frameworks of the financial sector entities involved in the ecosystems. However, the FICOD framework – the current regulations for financial groups and mixed groups – does not address the risks arising from the interrelatedness between financial undertakings and technology companies in ecosystems. There are different directions in which solutions may be sought to address risks within ecosystems. One strategy would be to address these risks in the sectoral supervisory regimes. Another strategy could be to adjust the FICOD regime. The latter strategy could be developed in different ways. The added value of extending the group concept to certain contractual relationships that are similar to parent-subsidiary relationships in terms of risks arising from the interrelatedness of financial and non-financial activities could be explored. Other options include extending the concept of "financial sectoral entities" and overseeing certain technology companies in hybrid ecosystems.

III. The regulatory legal framework and supervisory practices in Europe must be more closely harmonised.
Closer harmonisation of the regulatory legal framework is required where financial services are readily made available digitally across borders and there is scope for different policies of Member States. Preferably, new developments are addressed directly at European level. Tech companies, especially the Big Techs, also operate across borders and require a European approach in terms of supervision and regulations. Closer harmonisation can be achieved by introducing rules in the form of directly applicable European regulations as much as possible, by opting for maximum harmonisation, by restricting Member State options and by aligning interpretations of rules at a European level. Also, the supervisory and enforcement practices of national supervisory authorities could be more unified, ensuring a common, uniform and consistent interpretation and application of the European regulation. More cooperation between supervisory authorities with different mandates is also called for. The Ministry of Finance has announced that it will soon be setting up a 'Harmonisation Dialogue', which will enable market players to identify where the harmonisation of European regulation can be improved.where the harmonisation of European regulation can be improved.

IV. Regulation and supervision must be sufficiently proportionate and efficient.

Insufficient proportionality in regulation and supervision may result in an unnecessary regulatory burden, which may impede access to the regulated market, particularly for small innovative start-ups. The exploratory study shows that market players do not always perceive regulation and supervision to be proportionate, which is why the supervisory authority needs to continuously assess the adequacy of the statutory legal framework and supervisory practices, and remain engaged in an ongoing dialogue about this with the market sector.

At European level, the European Supervisory Authorities have set up advisory committees on proportionality. At national level, a regular consultation has been initiated between DNB and the smaller banks within the NVB context. In some cases, there may be more efficient and more effective supervisory methods available in the supervision of unbundled value chains. For example, market participants want an outsourcing company to be safe in the knowledge that the certified outsourced work they perform, in principle, complies with the financial supervisory requirements. In terms of outsourcing relationships, another option is to shift the focus in the supervisory process to the third party, as has recently been done, for example, in pension administration supervision towards pension administration organisations. The process then becomes more effective and more efficient for all parties involved.

V. It is worth exploring whether more room for experiments can be provided by renewing the Regulatory Sandbox.

As part of a new initiative, AFM and DNB will jointly examine the possibilities to improve the functioning of the Regulatory Sandbox within the existing regulatory legal framework. To this end, comparative research into other sandboxes will be carried out, and there will be an assessment of whether successful initiatives from other European sandboxes would have encountered any obstacles in the Netherlands. This will help gain a clear picture of what adjustments to the Regulatory Sandbox might be useful and necessary. The best way to improve the room to experiment is by submitting concrete proposals. This allows for a specific focus of where an experimental activity conflicts with the current regulatory legal framework, and how this can be dealt with in such a way as to still be able to facilitate an experiment or pilot. Moreover, it is important that experiments are also scalable at European level.

Box 1 Follow-up

I. DNB and the members of the consultative group are committed to a holistic and European approach to new regulations in relation to innovation and the emergence of new players.

II. The Ministry of Finance will soon be setting up a 'Harmonisation Dialogue', which is to enable market players to identify where the harmonisation of European regulations needs to be reinforced.

III. Examples provided by the market showing that supervision is not proportionate will be reviewed by DNB on the basis of three principles: (1) proportionality in financial law and supervisory practices are in balance, (2) proportionality in European regulation is followed in the national implementation and (3) the principle of proportionality is applied in 'options & discretions' in European financial law.

IV. In collaboration with AFM, DNB will be initiating a study in the third quarter of 2021 into a possible renewal of the Regulatory Sandbox. This will take place under the flag of the iForum, in collaboration with the sector.

1 Introduction

This report contains the findings of an exploratory study on opportunities and obstacles in the supervisory regulatory legal framework in relation to innovation; an iForum initiative that was carried out in the first half of 2021. The iForum connects the financial ecosystem and DNB in the field of technological innovation, through joint initiatives, pilots and experiments. The iForum is dedicated to an open dialogue between the sector and the supervisory authority.[3] The report was drawn up in consultation with trade associations and individual financial institutions and supervisory authorities, assembled in an consultative group. (See the Annex for the composition of the group[4]). DNB served as the acting secretary. The report covers the main findings, but does not represent formal positions of the parties involved. The consultative group endorses the general conclusions of the report.

Financial and technological innovation, the emergence of new market players, and the impact of these developments on the market structure raise the question of whether the financial regulation and supervision – the supervisory regulatory legal framework – are sufficiently tailored to this. The key question in this exploratory study is what the supervisory regulatory legal framework must meet in order to continue to safeguard the objectives of financial supervision on the one hand, and to allow sufficient scope for innovation in the market on the other hand.
In a public-private setting, bottlenecks have been identified in the regulatory legal framework that occur in relation to innovation in the Dutch financial sector, and possible improvements have been considered. Opportunities for improvement lie partly within the competence of the national supervisory authorities. The FinTech action plan of the Minister of Finance and the State Secretary for Economic Affairs formulates the ambition of "regulations that are ready for the future and that offer scope for innovation", with the aim that "FinTech companies can grow within and beyond the borders of the Netherlands, within a clear and unambiguous legal framework".[5] In many cases, these are issues that are relevant at European level and could, for example, be included in the European discussions on the further development of the Digital Finance Strategy.[6]
In this communication, the European Commission has stated that 'by 2024 the European prudential and conduct regulation and supervision should be adapted to be future proof for the new financial ecosystem'. The Commission will be introducing initiatives in the coming period in addition to a number of proposals already set in place. It has asked the European Supervisory Authorities for advice on this.[7]

This report successively addresses trends in technology and innovation in the financial sector (2), and identifies bottlenecks and possible improvements (3).

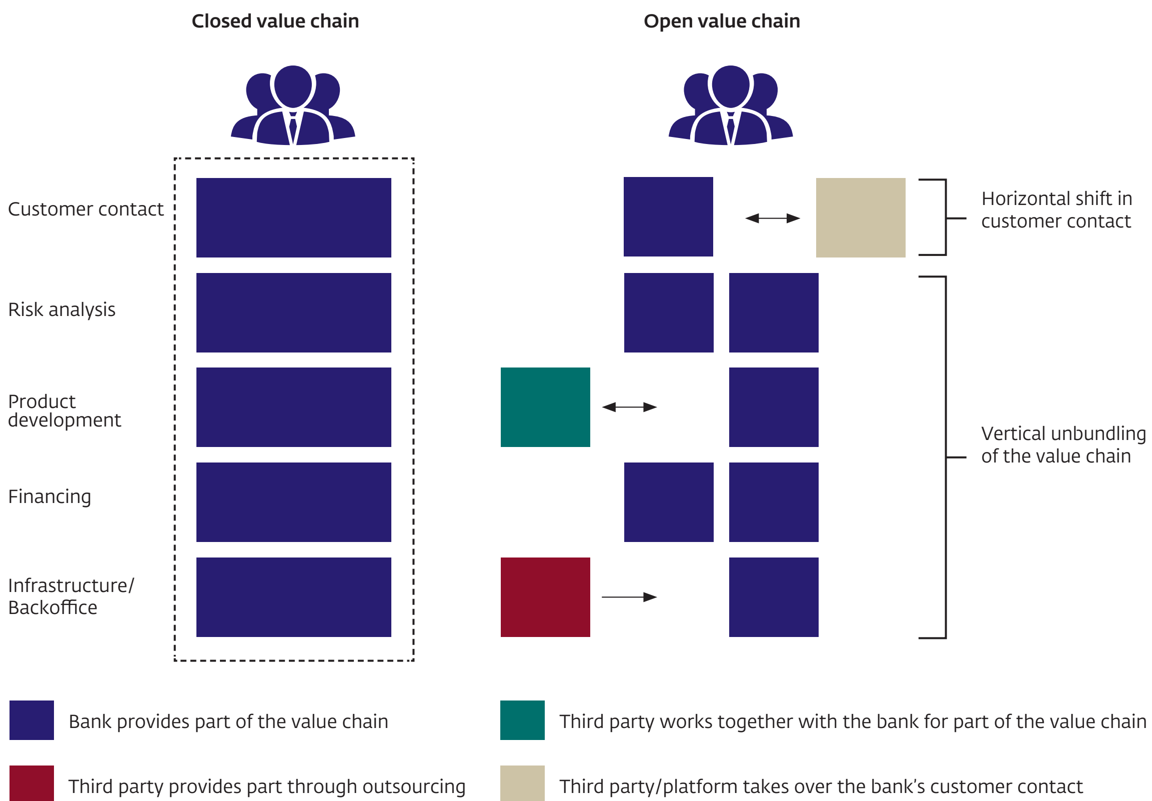
3 The pension sector has been excluded in light of the fact that the regulatory legal framework and the bottlenecks related to innovation in this sector diverge too much from the other sectors mentioned and other European countries.
4 The Ministry of Finance and the Dutch Data Protection Authority attended the consultative group meetings as observers.
5 The Minister of Finance and the State Secretary for Economic Affairs, FinTech Action Plan, 3 July 2020.
6 The European Commission, Communication on Digital Finance, 24 September 2020. See in particular section 4.4. The concept of Markets in Crypto Asset Regulation (MiCAR) and the Digital Operational Resilience Act (DORA) were published at the same time.
7 European Commission (2021), Request to EBA, EIOPA and ESMA for technical advice on digital finance and related issues. The European Securities and Markets Authority (ESMA), in turn, launched a "Call for Evidence" in this area, aimed at market operators. Banking services, payment services, credit services and insurance services and products are excluded from the consultation. See: ESMA launches call for evidence on digital finance.

2 Trends in the financial sector and supervision

Driven by technology and market developments, the value chain of financial products and services is increasingly unbundling. Third parties are responsible for part of the product or service, often for multiple licence holders ('unbundling and re-bundling').[8] See Figure 1.

Activities in the chain can be provided by relatively small specialised parties, consider for example electronic messaging security operators, but also by large global service providers that do not primarily focus on the financial sector, such as cloud services offered by Big Techs. In addition to this "vertical"

Figure 1 Transparency in the value chain for lending (stylised)



Source: DNB (2018)

8 DNB (2018), Unchained, Supervision in an open banking sector. The concept comes from J. Hagel III & M. Singer (1999), 'Unbundling the corporation', *Harvard Business Review*, March-April.

unbundling and re-bundling of the value chain of financial services, there are also forms of "horizontal" unbundling and re-bundling.[9] In such cases, third parties place themselves between the financial service provider and the customer and take over all or part of the customer relationship. Financial services can thus be combined with other services or products on the same online platform.[10] Platforms and financial undertakings and non-financial corporations may form part of wider open or more closed ecosystems within which various partnership relationships exist.[11] In these ecosystems, financial service providers also enter into partnerships with Big Techs, such as Apple Pay and Google Pay. Hybrid forms of financial services are emerging, partly regulated and partly unregulated. Financial services will become part of a wider range of products, where user experience is paramount. One example is the introduction of "Google Plex" accounts in the US (see Box 2). The application of new technologies – such as artificial intelligence and big data, tokenisation, smart contracts, peer-to-peer financial services and blockchain/distributed ledger technology – will continue to develop.[12] Financial institutions have been using cloud-based applications for some time already. This is as yet limited for critical or core functions, but the trend is increasing and assuming a more co-innovative character.[13]

Box 2 Google Plex[14]

Google announced "Google Plex" in the US at the end of November 2020. A Google Plex account combines a traditional banking app with Google Pay payment services such as contactless payments, peer-to-peer payments, as well as services such as a personal budget planner and offers from merchants. Google will offer the Google Plex accounts in cooperation with Citi and 10 other (smaller) American banks. Citi's retail division is still relatively small and the bank can reach more customers by using Google Plex as a distribution channel. Google says that cooperation has benefits for both parties: it enables the bank to offer customers the best possible user experience, while Google can take advantage of the bank's regulatory expertise. There are no indications that Google plans to offer Plex accounts in Europe.

9 DNB (2018) page 4.
10 An online platform can be defined as a digital service that facilitates interaction between two or more distinct but independent groups of users (companies or individuals) interacting by means of the service on the internet. See OECD (2019), An Introduction to Online Platforms and Their Role in the Digital Transformation. OECD Publishing, Paris, page 23.
11 OECD (2019). page 24.
12 Expert Group on Regulatory Obstacles to Financial Innovation (ROFIEG) (2019), 30 Recommendations on Regulation, Innovation and Finance, Final Report to the European Commission, pages 22-37, contains an up-to-date description.
13 Financial Stability Board (FSB) (2019), Third-party dependencies in cloud services: Considerations on financial stability implications - Financial Stability Board (fsb.org).
14 Derived from DNB (2021), 'Changing landscape, changing supervision. Developments in the relationship between Big Techs and financial institutions'. October 1st 2021, media reported that Google had abandoned the project. See: Google Is Scrapping Its Plan to Offer Bank Accounts to Users - WSJ.

The rapid advances in digitisation and platformisation in the financial sector will further increase the role of Big Tech companies in financial services, which could make them systemically relevant in the foreseeable future.[15] This is particularly due to the inherent scalability of their platforms: these platforms generate data, which through data analytics generate interactions between users of the platforms, the so-called network effects, which then generate needs for additional activities on the platforms, which in turn generate new data and so on. That makes this 'DNA process' a self-strengthening mechanism.[16] Having this data-driven revenue model, characterised by an intertwining of financial and (much more substantial) non-financial activities, they are able to compete fiercely with established financial undertakings such as banks and insurers that have their margin-driven and provision-driven revenue models, and a supervisory environment that limits their business activities to financial activities.[17] Innovation can benefit society as a whole if it leads to reduced transaction costs. These transaction costs often form the basis of financial institutions' revenue models, which could subsequently be discarded. Unbundling and new forms of cooperation are making the playing field increasingly global, something which could undermine the effectiveness of local supervision.

The decision-making centre and most of the activities of a tech company operating in the financial sector may be largely or entirely outside that sector, which makes effective supervision difficult. Large tech companies are starting, in some cases with only the most basic of set-ups, or taking over licensed entities in order to offer financial services, such as payment services, which tie in with a broader core business (Amazon Pay, Uber Pay). New conglomerate-like partnerships are being formed through the platformisation of financial services. In the insurance sector, platformisation has taken the form of comparison websites, where insurance is taken directly through a platform that has authorisations as an authorised agent, advisor and mediator. New forms of financial activities are also emerging, such as peer-to-peer insurances with the insurers in a new, intermediary role. As long as the scale is small, this does not require any special supervisory attention. Outside the financial sector, however, peer-to-peer networks have in some cases assumed great proportions.[18] Services in peer-to-peer networks can even be driven by distributed technology without an approachable platform and without a specific location, and thus without an entity that can be supervised.

15 Also see Carstens, Public Policy for big techs in finance, BIS speech, 26 January 2021.
16 See also DNB (2021), section 2.2.
17 The non-financial activities of banks are restricted through a licensing regime that only covers financial activities (Section 3:32 of the Act on Financial Supervision (Wet op het financieel toezicht – Wft), a no-objection regime for substantial non-financial participating interests (Section 3:96 of the Wft), a system of limits for banks' non-financial qualifying holdings and a risk weighting of those qualifying holdings of 1250% for the calculation of the solvency requirement (Section 89 of the Capital Requirements Regulation (CRR)). The non-financial activities of insurers are restricted by the prohibition on engaging in ancillary activities, other than trading activities deriving from their insurance operations, or activities related to their exposures secured by premium income, such as mortgage lending (Section 3:36 of the Wft).
18 A well-known example is Airbnb.

The supervisory regulatory legal framework for the financial sector has become extensive and complex, making implementation more difficult. The stratification and detail of the regulations and the growing number of distinct types of entities that partly perform the same activities lead to an increasingly complex system of financial regulation. There are over forty licensing and supervisory regimes based on Level 1 Regulations and Directives and several hundreds of Level 2 Delegated Acts, Implementing Acts, Regulatory Technical Standards & Implementing Technical Standards and about two hundred Guidelines of the European Supervisory Authorities. To this we must add the Guidelines of the International Standard Setting Fora, such as the Financial Action Task Force's recommendations and the Principles for Financial Market Infrastructures of the Committee on Payments and Market Infrastructures. This extensive regulatory volume leads to specialisation, both in the market and among the supervisory authorities, as a result of which the market is becoming increasingly fragmented and the overview on coherence, or the lack thereof, of the regulatory legal framework is in danger of being lost due to specialisation within the scope of supervision.

The multiplicity of regulations also leads to a multitude of reporting requirements that sometimes overlap or are not consistent. Moreover, regulatory initiatives responding to innovations in the market, often from Europe, sometimes overlap in their area of focus and are not always aligned with each other or with existing regulations. Examples include the requirements of privacy protection and the duty of care and KYC[19] requirements for financial institutions (which may sometimes conflict), and the legislation/initiatives in the field of IT, digital risks, operational resilience (DORA versus the NIS[20] directive).

Societal duties and responsibilities are not always proportionate to all players. And because of the allocation of sectoral supervisory responsibilities to different supervisory authorities and varying degrees of concentration of supervision – e.g. European supervision for banks (Single Supervisory Mechanism – SSM) and national supervision for insurers and payment institutions, – the risk of inconsistency increases.

19 Know your customer.
20 The Directive on security of network and information systems.

3 Opportunities and obstacles

3.1 Introduction

The regulatory legal framework will have to remain effective under the new developments and, at the same time, be able to provide scope for innovation. The primary objective is to keep financial services well regulated and to control risks arising from the unbundling of the value chain and possible risks from an increasing role of non-regulated or lightly regulated market players. On the other hand, it is desirable to accommodate innovation and accession of new market players. Initiatives are being taken at European level and beyond to address these issues. National action is sometimes required to respond to developments. As part of this initiative, a number of bottlenecks have been discussed with market players and improvements have been identified.
The following topics will be discussed:

- Activity-based supervision versus entity-based supervision (3.2)
- Supervising hybrid ecosystems (3.3)
- European harmonisation (3.4)
- Proportionality and efficiency of supervision (3.5)
- Room for experiments (3.6)

3.2 Activity-based supervision versus entity-based supervision

One option regularly put forward to deal with the increasing diversity of market players and the unbundling of the value chain is to frame legislation, regulations and supervision in a more activity-based manner. This is often summarised in the expression “same activity, same risks, same rules”.[21] Financial undertakings offer financial services and products to customers, trade on financial markets, and carry out safekeeping and administrative activities, which may be summarised in the term “activities”.[22] Those activities often require a licence granted to an entity, but the relationship is not one-to-one: some licences may allow for more activities to be carried out, whether or not under partial licences, and some activities may be carried out by different types of licenced entities. The imbalances created in the playing field by having the same activities being offered by entities with different licences may distort the market. Activity-based regulations and supervision standardise the regulations of a particular activity, thus equalising the playing field. There is no consensus yet with regard to the areas in which this is possible and opportune.

21 See, for example, ROFIEG (2019), and the Communication on Digital Finance of the European Commission.
22 A similar definition of activities sets out: F. Restoy (2021), “FinTech regulation: how to achieve a level playing field” (bis org), FSI Occasional Paper, No 17.

The balance between entity-specific rules, activity-specific rules and "horizontal" topics that apply to the financial sector or in a broader context is mainly determined by the objectives of supervision. The objectives of financial supervision differ according to the nature and context of the activities, ranging from objectives aimed at protecting consumers (consumer credit) and depositors to objectives aimed at ensuring the soundness of the financial undertakings and the stability of the financial system. The application of the principle "same activities, same rules", aimed at removing an uneven playing field due to different prudential rules, is justified only where this does not undermine the objectives pursued by the relevant regulation.[23]

Where financial stability and soundness of financial undertakings are paramount, entity-based regulations remain imperative. This is implied by the nature of companies that are important for financial stability and hold customer funds. The same activity may entail different risks, depending on the nature of the entity carrying out the activity in question. A bank that uses funds on deposit to lend to a company does so on its own account and without any influence from depositors or other financiers. This also applies to insurers versus contributors. Banks and insurers are therefore subject to strict capital requirements, which again differ according to the nature of the institution.[24] This is not to say that every prudential rule should automatically be applied to every bank's or insurer's subsidiary, regardless of the nature or scale of the activity undertaken by that subsidiary.[25]

The objectives of most rules of conduct are consistent with activity-based regulations, and so is supervision, which is why this is the starting point in the current conduct of business regulations. Rules aimed at the prudent treatment of customers and orderly relations between market participants are generally associated with the provision of certain financial services or products or other activities in the financial sector. In addition, an activity-oriented approach is followed in horizontal, cross-sectoral schemes, for example, with rules on cyber risk management, outsourcing risks, and the regulatory legal framework for privacy protection (the General Data Protection Regulation – GDPR). Rules to combat money laundering and terrorist financing apply to a large number of types of entities.

In part, the uneven playing field between Big Tech companies and established financial undertakings is addressed by future regulation. Big Tech companies are active in many areas, in different parts of the value chain, and on a very large scale. This means, for example, that the materialisation of operational risks has a major, possibly even disruptive impact. Big Techs' platforms act as an important gateway for business users to reach end users. This role as a commercial "gatekeeper" provides them with a strong economic position

23 See also Restoy (2021).
24 Also see: A. van den Hurk & B. Joosen (2019), A Cross-Sectoral Analysis of Micro-Prudential Regulation, in: D. Busch, V. Colaert, Th. Incalza (eds), European Financial Regulation. Levelling the Cross-Sectoral Playing Field, Hart: Oxford etc.
25 Restoy (2021), page 9.

that may be abused and it creates a dependency for both business partners and end users. Regulations that are based on supervised institutions having sufficient bargaining power to ensure compliance with those regulations in the case of outsourcing or procurement are therefore running up against the limits of what is possible. From this perspective, specific regulation would be advisable. The European Commission has proposed a regulatory legal framework for the ICT risk management of financial undertakings and oversight of providers of critical ICT services to which financial undertakings outsource work – the Digital Operational Resilience Act (DORA). These proposals involve oversight without market entry conditions or ongoing – binding – requirements, and with limited enforcement and sanctioning tools. The proposal for a Digital Markets Act (DMA) includes rules regulating online platforms that may be considered "gatekeepers".[26] These rules will also govern the provision of financial services through these platforms. The Digital Services Act (DSA) comprises proposals to protect the fundamental rights of users of digital services.[27] The European Digital Identity framework will also require Big Tech to adopt a European e-ID.[28] These initiatives will not be implemented before 2023.

These legislative initiatives do not address the differences between tech companies and established financial undertakings that result from different prudential regimes to which companies are subject. However, it should be noted here that where the *i* Act on Financial Supervision (Wft) provisions restrict banks and insurers from engaging in non-financial activities[29], such activities are not entirely excluded.
For banks, the wording of Section 3:32 of the Wft on the universal banking licence does not exclude the performance of non-financial activities, nor does the wording of Section 89 of the Capital Requirements Regulation (CRR). For insurers, the same can be said about Section 3:36 of the Wft, concerning the prohibition of an ancillary line of business. For both categories of financial undertakings, it could be argued that the provision of ancillary services by the licensed institution is permitted as long as it does not threaten the institution's soundness. Take, for example, the software-related activities of a bank or insurer. However, the harmonisation of solvency rules – e.g. by excluding non-banking payment service entities or lending entities in a banking group from the consolidated oversight of that bank or banking group and subjecting these non-banking entities (only) to the prudential requirements applicable to the sector on an individual basis –

26 See The Digital Markets Act: ensuring fair and open digital markets | European Commission (europa.eu), also for a more detailed explanation of the gatekeeper role.
27 On 24 September 2020, the European Commission published its proposals on DORA as part of the Digital Finance Package. The European Commission's proposals on the Digital Services Act (DSA, COM(2020) 825 final and the Digital Markets Act (DMA, COM(2020) 842 final) were published on 15 December 2020.
28 A trusted and secure European e-ID - Regulation | Shaping Europe's digital future (europa.eu).
29 See footnote 17.

is not the way to go. It could lead to an under-estimation of the solvency risks on a consolidated basis, thereby jeopardising the objectives of the prudential supervision aimed at the soundness of banks and, with this, the supervision aimed at the stability of the financial system.

A shift from entity-based regulations to activity-based regulations is not an option for supervision of financial soundness. However, Big Techs' activities must still be adequately regulated. The oversight ofpartnerships of Big Tech companies and banks/insurers could be strengthened as regards, in particular, the operational risks stemming from the interrelatedness of financial and non-financial activities of Big Tech companies and the inter-relatedness of services provided by the companies working in partnerships. Effective supervision of the activities of Big Tech companies calls for a holistic and European approach, whereby the mix of entity-based rules and activity-based rules is rather tuned in favour of entity-based rules in certain policy areas, particularly in the field of competition. In addition to the aforementioned European initiatives, perhaps a bespoke approach to Big Tech companies is needed, which should then go hand in hand with reinforcing sectoral and cross-border cooperation between supervisory authorities (see also 3.4).[30]

3.3 Supervising hybrid ecosystems

The emergence of hybrid ecosystems offers opportunities for customers of financial services and for financial undertakings participating in these hybrid ecosystems, but it also creates risks. There are benefits for customers of financial services through better access to financial services, better services and lower costs. Risks include the use and security of privacy-sensitive data and ambiguity as to which of the interrelated companies is responsible for compliance with the various rules of conduct. For financial undertakings, there are opportunities in more efficient business processes (digitalisation) and possibilities of innovative use of data for marketing and risk management purposes. However, this may also involve privacy-sensitive data, and therefore compliance risks and reputation risks, as well as – see below – risks within the prudential domain of financial supervision.

The interrelatedness of established financial undertakings and technology companies may trigger cross-sectoral risks that are not sufficiently addressed by sectoral regulatory legal frameworks. New technology companies – and particularly the Big Tech companies on account of their extensive customer base and the aforementioned DNA process – may take over traditional financial services and the customer relationship from the established financial undertakings, with the financial undertakings in a back-office role in the partnership relationship. This could lead to customers buying

30 See also J.C. Crisanto, J. Ehrentraud & M. Fabian (2021), Big techs in finance: regulatory approaches and policy options, FSI Briefs No 12. For recommendations in this area, see also DNB (2021), Chapter 4.

financial products and services directly from the new Big Tech players.[31] Examples include the previously mentioned Google Plex accounts and the peer-to-peer lending platforms operated by technology companies. The risks that this fragmentation of the value chain creates for financial supervision are diverse. Within the domain of prudential supervision, these are operational systemic risks and compliance risks, arising from the interrelatedness of market players participating in the ecosystem, and operational idiosyncratic risks, associated with the complexity of innovative services and products and their impact on the legal risk and the management of ICT systems, and compliance risks, arising from the interrelatedness of services provided by players participating in ecosystems.[32]

There are also risks relevant within the domain of the supervision of conduct, e.g. the allocation of duty of care requirements between Big Tech companies and financial service providers – entities participating in the value chain, the domain of the GDPR, resulting in the question as to which entities are responsible for the protection of personal data generated in the value chain, and the AML/CFT[33] domain, raising the question of which entities are responsible for the AML/CFT requirements in case of complex transactions in the value chain. Fragmentation in the value chain may cause the financial supervisory authorities to lose their grip on the individual entities in the value chain that are subject to their supervision.[34] Financial supervisory authorities may therefore require a partnership to be transparent about (1) the allocation of responsibilities for compliance with the financial regulations applicable to the value chain, e.g. prudential, conduct, the GDPR and AML/CFT, to prevent blind spots in supervision, and (2) the control of the cross-sectoral risks, to prevent blind spots in risk management within the partnership. Big Tech companies that provide financial services may also be required – to the extent that this is not already common practice – to provide these services through a separate legal entity, in order to avoid obstacles to monitoring compliance with the law.

In its Digital Finance Strategy, the European Commission announced that it will assess how it can best be ensured that the scope of prudential supervision is comprehensive enough to include the risks arising from these ecosystems.[35] To this end, the European Commission will consider whether the provisions on group supervision in EU financial services legislation, such as the Financial Conglomerates Directive (FICOD), could have an institutional scope that is sufficiently broad and flexible to adapt to the constantly changing financial market structure. The current FICOD framework does not address the risks arising from the interrelatedness between financial undertakings and technology companies in ecosystems.

31 Such a scenario is outlined in DNB (2021), Chapter 3, the "Big Tech in charge" scenario.
32 E. Noble (2020), The Next Generation of Financial Conglomerates: Big Tech and Beyond, SSRN Paper 3693870.
33 Anti-Money Laundering/Countering the Financing of Terrorism.
34 For example, see also the EIOPA (2020) Discussion paper on (re)insurance value chain and new business models arising from digitalisation | Eiopa (europa.eu).
35 European Commission, Communication on Digital Finance, Section 4.4.

The FICOD framework is based on the notion that a financial conglomerate on a consolidated or sub-consolidated basis poses risks that are not or that cannot be addressed by the different sectoral rules. That is why, in addition to sectoral supervision, the framework provides a regulatory legal framework for the financial conglomerate as a whole that addresses the cross-sectoral risks. A partnership between a Big Tech company and a financial undertaking is usually based on a contractual relationship and therefore, in principle, does not qualify as a group within the meaning of Article 22 of Directive 2013/34/EU. Furthermore, a partnership between a Big Tech company and one or more banks or insurers does not qualify as a financial conglomerate, because the activities do not primarily take place in the financial sector, there is not necessarily a mix of entities from the insurance sector, the banking sector or the investment services sector, and the consolidated financial activities of the Big Tech companies in the partnership are generally not (yet) significant.
This does not detract from the fact that, to the extent that such risks materialise, they may be addressed through the flexible application or adjustment of the sectoral prudential rules that apply to these companies. This can be done, for example, by requiring financial companies that enter into partnership relationships on a contractual basis to record in those relationships – contractually or otherwise – how certain cross-sectoral risks are addressed in the partners' risk management systems. Furthermore, certain "ecosystem-specific" risks will be addressed by the pending horizontal regulations such as the DSA, the DMA and DORA.

Another means of addressing cross-sectoral risks within ecosystems may be found in an adjustment of the FICOD regime. The European Commission's intention to explore a flexible application of this regime offers opportunities for this.
It could be considered whether there is added value by:

1. extending the group concept to certain contractual relationships which, in the opinion of the supervisory authority, entail a relationship similar to that of control between a parent company and a subsidiary in a financial conglomerate;
2. reconsidering the condition that a group qualifies as a financial conglomerate if the consolidated activities of these financial sector entities are significant, for example by extending the concept of "financial sector entity" to entities specialised in payment services;
3. overseeing certain technology companies in hybrid ecosystems.

With regard to the third item, in the event of extensive intermingling of activities of non-regulated technology companies and regulated financial undertakings, consideration could be given to require the former to have the same licence as the latter. This has previously been done in relation to certain payment services. This also serves to prevent non-regulated or lightly regulated technology companies to take over the customer relationship while remaining outside the more onerous banking licence, by the stacking of other licences (for the provision of payment services and for the holding of bank accounts, respectively).

The question is, however, how to avoid a situation where bringing more parties into the scope of supervision may unnecessarily impede innovation. Integrating new techno-financial groups into the FICOD framework should not overlook that financial risk of such groups deviates from 'traditional' financial conglomerates and are more related to operational and functional interdependencies.[36] Furthermore, competition law aspects and the sustainability of business models should be taken into account.
In its study "Big Techs on the payment market", the ACM argues that Big Tech companies in an operating role on online platforms with their own payment services should also allow competing payment services.[37] With regard to Big Tech in a facilitating role for contactless payments, the ACM advocates that the PSD2 framework should be amended to make it compulsory for smartphones to be able to use multiple payment apps.

3.4 Harmonisation at the European level

National differences in implementation and application of European rules lead to supervisory arbitrage and policy competition. European rules partly take the form of directives, which must be transposed into national legislation. Sometimes, there is a minimal level of harmonisation, leaving room for more extensive national rules. Another source of differences can be found in the Member State options, whereby a Member State may deviate from European rules within the limits of that option. Member States make use of Member State options in cases where local (national) interests so require. This means that differences in regulation continue to exist between Member States. Furthermore, the national supervisory authorities may have policies in place that allow for deviation from the explanation or interpretation given to those rules, or differences in the enforcement policies and supervisory culture. The SSM framework limits the national margin for this.[38]

The differences between Member States are particularly troublesome in cross-border services and digital services. The advancing digitalisation is an important driver for the growth of cross-border services, as physical presence is either less or not required, making services possible on a European scale. Using their European passports, institutions from other Member States are not subject to specific Dutch policies, which do apply to Dutch companies. For example, the obligation for Dutch payment institutions to monitor transactions regarding the origin and destination of funds is interpreted differently than is the case for certain payment institutions operating in other Member

36 See also A.J.A.D. van den Hurk, "Next Generation of Financial Conglomerates?", Tijdschrift voor Financieel Recht (Financial Law Journal), no. 3 February 2021.
37 ACM (2020), Big Techs in the Dutch payment system.
38 See, for example the ECB Guide on options and discretions available in Union law – Consolidated version (europa.eu), in which the ECB offers guidelines on different options and discretions aimed at a common, uniform and consistent application of Union law.

States.[39] Nor does the Dutch ban on inducements apply to parties working from other Member States. The bottleneck is not felt as acutely within each sector. However, insurers' markets, for example, are also becoming increasingly European for the major players. The Dutch insurance sector has a particularly local focus, but foreign insurers are gaining ground on the Dutch market. The area of operations of Dutch and other European payment service providers is also increasingly taking on an international dimension. With the introduction of the European banking union, regulations for the banking sector are more uniform than regulations for other sectors.

There are several complementary strands to further harmonise regulations in Europe and thus level the playing field more effectively. To a certain extent, rules at European level can be further laid down in regulations, which have direct effect, as opposed to in directives, which have to be implemented in national legislation. However, it should be borne in mind that a European regulation also requires implementation. For example, it is necessary to determine which entity is to become the supervisory authority, and to determine the means of enforcement available to that entity. Furthermore, procedural administrative law is not uniform within the European Union.
Therefore, even when opting for regulations, differences will continue to exist. The regulatory legal framework applicable in a given area then becomes a mix of directly applicable European rules and national rules, which does not make it any more transparent either. Furthermore, in some cases, rules cannot be laid down other than in a directive.[40] The inclusion of fewer Member State options in European rules should lead to a more uniform application of European financial supervisory law within the European Union. The downside of this is that a specifically Dutch interest may sometimes not be taken into account, and it may also become more difficult to reach an agreement on European rules. Member State options can offer support in this regard.

Reducing the leeway for national supervisory authorities' own interpretations would further harmonise supervision. The idea is that it is up to the European Supervisory Authorities, the ESAs, to interpret European regulations, and that the role of national supervisory authorities remains limited to taking such interpretations into account in the national application of European rules. For this to work effectively, it would be advisable for the ESAs to use shorter timeframes to provide these interpretations. Current processes can sometimes be time-consuming. Consideration could be given to how these processes can be accelerated. Harmonisation of supervision could be further enhanced by taking it to a European level.
The European Commission, for example, has

39 The European Commission has, inter alia, prepared proposals for the conversion of the Anti-Money Laundering Directive (AMLD), or parts thereof, into a regulation in order to promote the harmonisation of AML/CFT legislation and the formation of a European AML/CFT authority to thus support the cooperation between the different FIUs. The complete package of proposals can be found via: Anti-money laundering and countering the financing of terrorism legislative package.

40 The CRR/CRD package or the MAR/MAD2 package may be considered.

proposed the formation of a European AML/CFT supervisory authority.[41]

In general terms, the above points are already European and Dutch policies. At European level, a trend towards greater harmonisation has been initiated. A shift in the focus of European legislation from Level 1 directives to Level 1 and 2 regulations can be observed, as well as the wish to reduce Member State options in European legislation and the creation of guidelines & recommendations by the ESAs, aimed at alignment and, where possible, harmonisation of national and European supervisory practices. The Dutch FinTech action plan expresses the notion that "in a European and international context, efforts are made to harmonise regulations and supervision so that there are no differences between the (application in the) Member States".[42]

The Ministry of Finance has indicated its commitment to closer European harmonisation of regulation and supervision of financial services, and to set up a "harmonisation working group" to this end. This initiative is welcomed.

More cooperation between supervisory authorities is also recommended. The greater the role of platforms in the financial sector and beyond, the greater the need for more intensive cooperation between individual supervisory authorities with mandates in the areas of cybersecurity, data protection, competition and financial supervision. Linking areas of expertise and exchanging information would enable more complete and more uniform supervision.[43]

3.5 Proportionality and efficiency of supervision

Market participants sometimes regard the regulatory legal framework and supervisory practices as insufficiently proportionate. The application of the principle of proportionality in the regulatory legal framework means that rules do not go beyond that which is needed to achieve the intended objectives. The application of that principle in supervision means that supervision is proportionate to the nature, scale and complexity of the risks inherent in the business of the supervised financial institution, and therefore results in more or less stringent requirements in terms of the application of the rules contained in open norms. Insufficient proportionality in supervision may result in an unnecessary regulatory burden, which may impede access to the regulated market, in particular for small innovative start-ups. In the view of the market participants, the principle of proportionality is not always sufficiently applied. Above examples include the frequency and depth of the ORSA[44] for insurers and the ICAAP/ILAAP[45] for banks, and the recovery plans and preparatory crisis plans to be drawn up by institutions.

41 See footnote 39.
42 FinTech action plan, page 4.
43 See also DNB (2021), section 4.3.
44 Own Risk and Solvency Assessment.
45 Internal Capital and Liquidity Adequacy Assessment Process.

There may be more efficient and effective supervisory methods available in the current supervision of unbundled value chains. One example is the interpretation of the financial undertaking's responsibility for ensuring that a third party to whom activities have been outsourced complies with the rules applicable to the outsourcing financial undertaking in relation to those activities. In the case of certified outsourced activities, the outsourcing financial undertaking should be able to rely on the process meeting the requirements set for it. The EBA's outsourcing guidelines[46] provide for this – without prejudice to the ultimate responsibility of the outsourcing institution. This also applies to the EIOPA[47] Guidelines on Outsourcing to Cloud Service Providers as well as to the ESMA.[48] Guidelines on Outsourcing to Cloud Service Providers.[49] Another way is to shift the focus in the supervision process to the third party – as is done, for example, in pension supervision: the so-called "pension administration organisations – focused supervision".[50] This means that DNB will have more direct contact with the pension administration organisations during investigations within the context of Pension Supervision.

This is not yet possible in Wft supervision because the possibilities for DNB to conduct an on-site investigation at a third party are limited.[51] DNB is considering whether this can be adjusted.

More generally, it is important that the supervisory authority continuously assesses the adequacy of the regulatory legal framework and the implementation thereof and that it is in continuous dialogue with the market sector. Examples provided by the market showing that supervision is not proportionate will be reviewed by DNB.

With regard to proportionality, the following principles apply:

1. Proportionality in financial law and supervisory practices must be in constant balance. For example, if DNB applies the SREP[52] proportionally, its working method should differ according to the size and complexity of small and medium-sized banks;
2. Proportionality in European financial law is followed in the transposition of that law into national financial law. This is not always done consistently;
3. Applying the principle of proportionality in "options & discretions" in European financial law.

46 European Banking Authority.
47 European Insurance and Occupational Pensions Authority.
48 European Securities and Markets Authority.
49 EBA/GL/2019/02, item 91; EIOPA Guidelines on outsourcing to cloud service providers - NL.pdf, item 35; esma_cloud_guidelines.pdf, item 23 amongst others.
50 Publication report "PUO-focused monitoring" (dnb.nl).
51 Section 31(3) of the Decree on Prudential Rules for Financial Undertakings (*Besluit prudentiële regels Wft - Bpr*) stipulates that DNB may only conduct on-site inspections at third parties (service providers) if it cannot be determined in any other way that the provisions of or pursuant to the Act have been complied with in respect of the outsourced activities.
52 Supervisory Review and Evaluation Process.

At European level, the European supervisory authorities EBA, ESMA and EIOPA have set up advisory committees on proportionality to establish that dialogue. Proportionality may also be applied in the supervision of the non-financial activities of banks and insurers. See section 3.2.

Proportionality is an important starting point for DNB's Updated Supervisory Methodology (Dutch acronym: ATM). The impact of integrity issues or issues of soundness in supervised institutions determines the intensity of DNB's supervision. As ATM is currently being implemented, it is important at this stage to engage with market players and branch organisations about the interpretation of the principle of proportionality. For example, within the context of the Dutch Banking Association (NVB), regular consultations are now being held between DNB and the smaller banks specifically for this purpose. In these consultations, it is important to also consider the extent to which the use of technology can reduce the pressure on institutions without reducing the information to be provided to supervisory authorities. Data-driven supervision requires an effort from institutions to deliver the necessary data, but could make supervision for DNB and the institutions more effective and efficient.

3.6 Room for experiments

In 2016, DNB, in collaboration with the AFM, set up the InnovationHub and the Regulatory Sandbox. The aim thereof was, on the one hand, to provide low-threshold access to the supervisory authorities for start-ups and other newcomers and, on the other hand, to provide tailor-made solutions, for both newcomers and existing institutions, where the application of legislation or policy was an unnecessary impediment to innovation. Where there is insufficient legal certainty that innovative concepts comply with the applicable regulations, and insufficient involvement of supervisory authorities tosupport proof-of-concept projects through real-time guidance and interpretations, innovative concepts may not get off the ground properly. The InnovationHub and the Regulatory Sandbox were established to remove these barriers to innovation as much as possible. An evaluation of these initiatives identified the need for a way to test new products in the market at an early stage.[53] The Regulatory Sandbox has had little application as yet. In the opinion of the market, the current Regulatory Sandbox does not offer enough opportunities to develop, test and scale up promising initiatives into viable innovations. Strengthening the InnovationHub and the Regulatory Sandbox is also one of the actions set out in the FinTech action plan of the Ministry of Finance and the Ministry of Economic Affairs and Climate Policy.[54]

53 DNB and AFM (2019), Continuous dialogue. Lessons learned after three years of the InnovationHub and the Regulatory Sandbox, page 15.
54 FinTech action plan, pillar 2.

A number of international examples of regulatory sandboxes[55] appear successful examples. Supervisory authorities in different countries have different mandates. In the international examples of effective regulatory sandboxes, stimulating innovation often forms part of that supervisory authority's task.[56] As a rule, ample capacity is available for organisational work around these experimenting areas, and for actively supervising the experiments that are being carried out. However, the means will have to be available to increase the possibilities to experiment. During the discussions with market players, it emerged that, at this stage, market players prefer to have examined how supervisory authorities, in consultation with the sector, could provide sufficient certainty, legally and otherwise, so that successful experiments can be carried out. The first step will be to explore the possibilities, while taking into account the current mandate and capacity. At the same time, it will be explored whether a change of mandate or capacity could have a positive effect on the functioning of an experimenting area.

A new iForum initiative will examine the possibilities to make the Regulatory Sandbox function better. The initiative, which will start in Q3 2021, aims, among other things, to examine the possibilities to improve the functioning of the Regulatory Sandbox within the existing regulatory legal framework. To this end, comparative research will be done into comparable initiatives, such as sandboxes in other countries, as well as in-depth research into possible legal obstacles. It will also be examined to what extent successful initiatives from sandboxes elsewhere in Europe would have encountered any obstacles in the Netherlands, in order to get a clear picture of what adjustments to the Regulatory Sandbox might be useful and necessary. It is in any case important that experiments are then carried out after the approval of and under the supervision (monitoring) of the supervisory authority. This supervisory authority could then impose conditions on the experiment which relate, for example, to (1) the mode of communication to the public, (2) the duration of the experiment, (3) the measures taken by the company to ensure that the experiment does not conflict with the interests that the Wft aims to protect. These conditions could be further developed in consultation with the sector.

The best way to improve the possibilities for experimenting is by making concrete proposals. The research has the best chance of success if the sector puts forward concrete pilot experiments. In this way, specific attention can be paid to the aspects in which an experimental activity does not fit within the current interpretation of the InnovationHub and the Regulatory Sandbox, and how this can be addressed in order to facilitate an experiment or pilot after all. In doing so, it must be ensured that both a temporary pilot as well as the activity to be eventually implemented fit into the

55 These are experimenting areas as in line with the ones mentioned for financial supervisory authorities from other countries.
56 See, for example: ESAs Joint Committee (2018), FinTech: Regulatory sandboxes and innovation hubs, R. Parenti (2020), Regulatory Sandboxes and Innovation Hubs for FinTech, World Bank (2020), Global Experiences from Regulatory Sandboxes.

regulatory legal framework, since the conducting of experiments is not an end in itself, but is aimed at bringing innovative products or services onto the market.

It is important that experiments are also scalable at European level. Since the scale at which new innovations are used by consumers is of great importance to their success, the market indicates that European cooperation is of great importance in developing an improved experimenting area. The European Forum for Innovation Facilitators (EFIF) has been established in this context. In its Digital Finance Strategy, the Commission announces initiatives to establish, together with EFIF, a framework for cross-border testing and to intensify cooperation within EFIF. These initiatives are supported by DNB and AFM. This will also ensure closer bilateral contact with colleagues in other EU countries who are responsible for the InnovationHub and/or the Regulatory Sandbox there. It offers DNB the opportunity to put parties into contact if they indicate that they would like to carry out their experiment in that Member State as well.

Annex

Composition of the consultative group

ABN AMRO	Hélène van der Meyden-Piet
Achmea	Christoph Vergouwen
Aegon	Arthur van den Hurk
Bitsafe	Marcel Trik
Bizcuit	Hessel Kuik
Bunq	Ali Niknam
Garantibank	Alex Hurkmans
ING	Teunis Brosens
Intersolve	Peter Schilder
Nationale-Nederlanden Bank	Jan Willem Stoffer
	Remco de Mol
NN-group	Henk Huisman
	Wessel Moerman
Noorderlinge Verzekeraars	Wiebo Nauta
Tintel (pay.nl)	Alexander Verhoeven
Rabobank	Bart Bierens
	Wannes Remmers
Holland FinTech	Don Ginsel
Dutch Banking Association (NVB)	Maurits de Nerée
	Angela Paparo
Dutch Association of Insurers (VvV)	Harold Mahadew
	Luuk van der Scheer
	Chris van Toor
United Payment Institutions Netherlands (VBIN)	Maurice Jongmans
Netherlands Authority for Consumers and Markets (ACM)	Simone de Boer
	Frank Vergouwen
Netherlands Authority for the Financial Markets (AFM)	Mirèl ter Braak
	Pieter Hulst (until 1 May)
De Nederlandsche Bank (DNB)	Willem Heeringa (Chairman)
	Hans Brits
	Frank van Dunné
	Cees Rensen
	Adam Pasaribu
	Rosa Janssen
	Dewi Thé

Observers

Dutch Data Protection Authority (AP)	Walter Cruccu
	Marnix Enthoven
Ministry of Finance	Annick Besançon
	Marlot Groot Kormelink

Furthermore, use was made of the insights gained in two academic sessions, in which the following persons participated:
Arthur van den Hurk LLM (Radboud University Nijmegen),
Professor Bart Bierens (Radboud University Nijmegen),
Professor Bart Joosen (VU Amsterdam),
Professor Emanuel van Praag (Erasmus University Rotterdam),
Professor Hélène Vletter-van Dort (Erasmus University Rotterdam),
Professor Kitty Lieverse (Radboud University Nijmegen),
Professor Kleis Broekhuizen (Erasmus University Rotterdam),
Professor Matthias Haentjens (Leiden University),
Professor Thomas Incalza (KU Leuven),
Professor Veerle Colaert (KU Leuven).

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EUROSYSTEEM

De Nederlandsche Bank N.V.
PO box 98, 1000 AB Amsterdam
+31 20 524 91 11
dnb.nl