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New Architectures in the Regulation and Supervision of Financial Markets and Institutions: The Netherlands

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* Views expressed are those of the individual authors and do not neccessarily reflect official positions of De Nederlandsche Bank.

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Abstract

In recent years, several European Union member states have modified the institutional design of financial supervision. These reforms pose the question which considerations have led to the different models chosen in these countries. We analyse the considerations in the Netherlands leading to the choice in 2002 of the twin-peaks model of financial supervision. The new model is based on the objectives of supervision. Thus, a separate authority is responsible for conduct-of-business supervision, whereas a merged central bank and pensions and insurance board take care of prudential supervision. The authorities share responsibility for financial integrity issues. The main conclusion of this paper is that the size, composition and structure of the financial sector in the Netherlands constitute the main rationale behind the choice for a twin-peaks model of financial supervision.

Key words: financial supervision, institutions, single supervisor, financial conglomerates
JEL classification: G18, G28, N24

1 Introduction

This paper describes how the institutional design of financial supervision in the Netherlands has evolved over the past decades. It concentrates on the major changes in the architecture of financial supervision that took place since the late 1990s. Its main purpose is to analyse the considerations that have led to the choice of the so called Twin Peaks model of financial supervision, adopted in 2002 by the Netherlands, and to the merger between the central bank and the pension and insurance board which took place in 2004. The Twin Peaks model is based on the *objectives* of supervision. Thus, a separate authority is responsible for conduct-of-business supervision, whereas

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the central bank and the pensions and insurance board, as an integrated institution, take care of prudential supervision. Both supervisory authorities share responsibility for financial integrity issues.

The financial supervision architecture in the Netherlands stands out internationally. The changes that took place in most other countries were directed at establishing a single supervisory authority, separate from the central bank (De Luna Martinez and Rose, 2003). Australia was an exception, as it opted in 1998 for a model under which one regulator, separate from the central bank, covers prudential supervision, whereas the former securities regulator is responsible for conduct-of-business supervision. By separating prudential supervision from conduct-of-business supervision in 2002, the Netherlands followed this example (Van der Zwet, 2003). However, an important difference with the Australian structure is that in the Netherlands prudential supervision is entrusted to the central bank, which after its merger with the pension and insurance board, is responsible for all prudential supervision.

The purpose of this paper is twofold. It aims at explaining the new structure, focusing on the reasons behind the choices made in the Netherlands. Moreover, it attempts to assess the new model, judging it in the light of the criteria of efficiency, effectiveness, and market orientation. The main conclusion of this paper is that the motivation behind the choice for the Twin Peaks model can be found both in the stable history of the Dutch banking sector, and in the size, composition and structure of the financial sector in the Netherlands. Changes in the financial structure, rather than financial scandals, prompted the authorities to opt for a new institutional framework for supervision. In this respect, the situation in the Netherlands differs from that in some other countries, notably the UK and Sweden, where banking scandals triggered a major change in the architecture of financial supervision, with the result that the reputation of the banking supervisor was harmed. As a result, in those countries establishment of a new institution was required to restore confidence in financial markets and institutions. Thanks to its stable financial history, the Netherlands did not need to set up a new authority, and could benefit from the good reputation of the central bank as the banking supervisor.

The present paper is structured as follows. To put the recent developments in a broader perspective, Section 2 contains an overview of the early history of financial supervision in the Netherlands up to 1990, the year in which the prohibition of mergers of and participation by banks in insurance companies and vice versa, was lifted and a new era began in the history of financial supervision in the Netherlands. In Section 3, developments in the structure and size of the financial sector in the Netherlands are described and compared to those in some other EU-countries. Section 4 describes the recent changes in financial supervision in the Netherlands since 1990, against the backdrop of changes in other industrialised countries. In Section 5, the reasons behind the changes to the architecture of financial supervision in the Netherlands are discussed in the light of the history and structure of the Dutch financial sector. Section 5 also provides a critical assessment of the new financial supervision architecture against the backdrop of the theory on financial regulation and the optimal design of financial supervision. Section 6 sums up the major challenges ahead for financial regulation and supervision in the Netherlands. Section 7 provides a summary and conclusions.

2 Financial supervision and financial development in the Netherlands up to 1990: a brief history

2.1 Banking Supervision

Before 1948, banking supervision in the Netherlands was characterised by gentlemen's agreements. Supervision was informal, and is referred to by economists and historians alike as 'paternal supervision' (Prast, 2001). In 1948, the Dutch Parliament adopted a Bank Act which implied nationalisation of the Nederlandsche Bank (Dutch Central Bank, DNB) (Vanthoor, 2004). This Bank Act 1948 gave DNB explicit responsibilities in guarding macroeconomic stability and the stability of the financial system. The supervision of the credit system was to be laid down in greater detail in a separate Act on the Supervision of the Credit System (Wet Toezicht Kredietwezen), which came into effect in 1952. The latter Act distinguished between monetary supervision, aimed at supporting monetary policy, business supervision (which was to be called prudential supervision at a later stage), aimed at protecting the interests of the creditors, and structural supervision, aimed at creating the conditions for a healthy and efficient banking sector (Mooij and Prast, 2003). DNB was to decide how to act in case of conflicting goals. Supervision was based on the principle of consultation with the representative organisations. This approach was a trademark of the financial supervision culture in the Netherlands and had its roots in the informal supervision arrangements that had prevailed in the first half of the twentieth century.

The 1952 Act on Supervision of the Credit System stipulated that in order to get a license, banks had to meet minimum solvency requirements. At the time no requirements were introduced as to the ability and integrity of high-level bank officials. The 1952 Act stipulated that for the participation in, taking over of or merger with, other financial institutions and for the merger with other enterprises or institutions, a declaration of no objection was required. As for mergers with or take-overs of non-banks, such declarations of no objection were not issued until the early 1980s.

During the 1950s and 1960s, credit ceilings, which were part of the supervisory toolbox of DNB, were primarily aimed –in combination with capital controls– at maintaining monetary stability.[1] The ceilings, which were directed at limiting liquidity growth, had the potential of harming financial sector efficiency (Prast, 2003). Not only did they limit the growth of the banking sector as a whole, they also prevented individual banks from growing at an above-average speed, thus distorting competition. In response to criticism by the government, the system was adapted to make it more flexible, and was eventually abolished in 1972.

Despite, or perhaps as a result of, the limitations imposed on individual banks, the banking sector changed considerably during the 1960s. Given the regulatory limits imposed on credit growth, individual banks were able to expand by mergers and take-overs only. This was the reason behind two major mergers that took place in this period. In 1964, ABN was created by a merger of Twentsche Bank and Nederlandsche Handel-Maatschappij, and Amro bank by a merger of Amsterdamsche Bank and Rotterdamsche Bank. In their requests for a declaration of no objection against these mergers, the banks mentioned cost efficiency, the growth of their client size, and, last but not least, the need for the banking system to strengthen its position in the international financial playing field (Mooij and Prast, 2003). It was especially the latter argument that convinced DNB that it could not refuse its approval, despite the obvious risk that the new

[1] These ceilings were imposed on the credit granted by each individual bank during a certain month, calculated as a percentage of total credit granted during the twelve months preceding the restriction.

institutions might get excessive market power.[2] The 1960s saw one bank failure, that of Teixeira de Mattos, a small bank with a few large and many small depositors. The bankruptcy got extensive press coverage, because at the time the public held the view that banking supervision could and indeed should prevent bank failures. This would influence the drafting of the 1978 Act on Supervision, which introduced deposit insurance to protect small creditors.

With the new Act on Supervision of the Credit System of 1978, the emphasis of banking supervision shifted from monetary towards prudential supervision. This was the result of two distinct developments. On the one hand, the collapse of the Bretton Woods system and the liberalisation of international capital markets implied that independent monetary policy in the Netherlands became virtually impossible.[3] On the other hand, the growing size and importance of the banking sector called for more detailed prudential supervision. With regard to the protection of creditors, the new Act introduced deposit insurance, to be carried out by DNB. The Netherlands was among the first countries in Europe to install this safety net, which had already been in place in the United States for several decades, and was to become obligatory in the European Union at a later stage (Garcia and Prast, 2003).

The 1978 Act provided DNB with a firmer grip on the banking sector and broadened the scope of supervision, including mortgage banks, which thus far had been characterised by self-regulation. Credit institutions were granted a period of three years in which to adapt their organisation to the new legislation. Before that period had expired, however, mortgage banks were confronted with serious difficulties. The 1970s had been a period of double-digit inflation and low real rates, which elicited a boom in the real estate market. By the end of the 1970s this bubble burst. One mortgage bank, the Tilburgsche Hypotheek Bank, went bankrupt and two other mortgage banks survived with the help of two major insurance companies.[4] The rescue operations were facilitated by the statement by the Minister of Finance in 1981, that if banks and insurance companies wished to increase the solvency of mortgage banks, a declaration of no objection would not be refused out of hand. With hindsight, this paved the way for the lifting of the prohibition on cross-sector mergers, which was to take place in 1990.

2.2 Insurance and Pensions Supervision

From the nineteenth century onwards, the need for general supervision to protect the interests of the insured in the Netherlands grew. As from 1830, all new life insurers had to obtain royal consent and in 1880, the Supreme Court of the Netherlands ruled that a law was needed. Because of disagreements over the form insurance supervision should take, it took until 1923 before the Life Insurance Industry Act (Wet op het Levensverzekeringsbedrijf) came into effect. Its provisions included the requirement for insurers to have a minimum buffer capital and to disclose their financial information to the Insurance Supervisory Authority of the Netherlands in accordance with the new Act. This Insurance Supervisory Authority (Verzekeringskamer) was created in 1923 as an autonomous administrative entity. The institutional design was chosen with the purpose of creating an institution that would build a reputation with the general public. The Dutch Parliament held the opinion that its executive branch was not sufficiently familiar with

[2] With the take-over of HBU in 1968, ABN gained access to Latin America and became the first ‘global player’ among the banks in the Netherlands.
[3] In fact, monetary policy became directed at pegging the exchange rate of the guilder to the Deutsche Mark.
[4] This was however not the first bank failure in the early 1980s. A year before, Amsterdam American Bank went bankrupt.

insurance industry practices and was unlikely to develop the necessary expertise. In addition, the legislator did not want political interests to play a role in insurance supervision, which should be fully focused on consumer protection. In 1952, the Insurance Supervisory Authority was also given responsibility for the supervision of pension and savings funds. Pension schemes had existed for a long time without government supervision because in the Netherlands pensions were seen as a privilege and not as a right. The first rules that the pension funds in the Netherlands had to comply with were laid down in a Royal Decree of 1908. They included a rule that a fund had to be co-managed by a delegation of member employees, and that the fund's assets had to be separated from the employer's assets. General legislation was introduced in 1936, after one company was unable to fulfil its pension obligations. In 1952 this led to the Pension and Savings Funds Act (Pensioen- en Spaarfondsenwet). Responsibility for the supervision of pension and savings funds was given to the Insurance Supervisory Authority, and thereafter pension promises ceased to be privileges and became acquired rights. One of the last forms of insurance to become subject to supervision was non-life insurance. The failures of a number of non-life insurers, led to the Non-Life Insurance Industry Act (Wet op het schadeverzekeringsbedrijf) in 1961. The responsibility for the supervision of non-life insurance was also allocated to the Insurance Supervisory Authority. In addition to a supervisory role, the Insurance Supervisory Authority was also given the role of adviser to institutions and ministries. In 1992 the Insurance Board was separated from the Ministry of Finance and became an independent public institution.

2.3 Securities markets supervision

As for the securities industry, the sector itself (Amsterdam Exchanges and the Options Exchange) had established its own Authority (Stichting Toezicht Effectenverkeer (STE)) only in 1988. This is somewhat surprising, given the long history of the securities trade in the Netherlands. In fact, the Amsterdam Exchanges is among the oldest stock markets in the world. This design of self-regulation was to be transformed at a later stage. At the time of its establishment, the Securities supervisor was made up of no more than three employees. In response to the increasing awareness of the importance of integrity issues in the securities trade during the 1990s, the institution was given more power, it’s staff growing to presently over 200 employees. The STE changed its name into the Authority for the Financial Markets (AFM) in 2002 and was to become the conduct-of-business supervisor in the new Twin Peaks model introduced in that year.

2.4 Milestones

Table 1 lists the milestones in the history of financial supervision and financial stability in the Netherlands in the period 1948-1990. As Table 1 clearly shows, this period saw few changes to the supervisory regime. This reflects the relatively slow pace of change in the structure and activities of the financial sector in this era. It should be pointed out, that as far as bank failures are concerned, only those that have occurred since 1948 have been included that is, since DNB became formally responsible for banking supervision.[5]

[5] See the Appendix for an overview of all bank failures in the Netherlands since 1912. No data are available to the authors regarding the failures of insurance companies and pension funds.

Table 1 Milestones in the history of financial supervision in the Netherlands up to 1990

1923	Establishment of the Insurance Supervisory Authority of the Netherlands
1936	Introduction of legislation for pension funds
1948	Nationalisation of DNB; Bank Act
1952	Act on the Supervision of the Credit System
	Pension and Savings Funds Act; responsibility for supervision of Pension Funds allocated to Insurance Supervisory Authority
1956	Amendment of the Act on the Supervision of the Credit System
1961	Non-Life Insurance Industry Act
	Teixeira de Mattos; bank failure
1962	‘s Gravenhaagsche Middenstandsbank; bank failure
1978	New Act on the Supervision of the Credit System; introduction of deposit insurance; mortgage banks included
1981	Minister of Finance announces that he will not automatically object to mergers between credit institutions and non-banks (i.e. insurance companies)
1981	Amsterdam American Bank failure
1982	Tilburgse Hypotheekbank; mortgage bank failure
1983	Take-over by insurance company of Westland-Utrecht Hypotheekbank; mortgage bank
1985	Take-over by insurance company of Friesch-Groningse Hypotheekbank; mortgage bank
1988	Establishment of the Authority for the Supervision of the Securities Trade (STE)
1990	Removal of barriers to financial conglomerates; establishment of Protocol between banking and insurance supervisor

3 Financial structure in the Netherlands since 1990

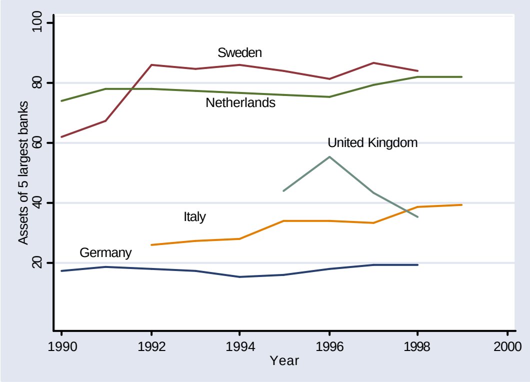
The final decades of the twentieth century saw a distinct change in the Dutch financial landscape. Globalisation, conglomeration, the blurring of distinctions between banking, insurance and securities activities, the single market for financial services in the European Union, the birth of the euro and a growing awareness of the importance of financial integrity and consumer protection were challenging regulatory and supervisory policies. These developments called for a response by the supervisors and would ultimately have implications for the architecture of financial supervision in the Netherlands. This section describes the developments in the Dutch financial sector against the backdrop of the financial structure in some other EU countries. This will serve as a background for the description and assessment of the changes in the architecture of financial supervision since 1990, given in Sections 4 and 5.

The liberalisation of capital markets in the 1980s had legalised cross-border activities for financial institutions. The subsequent developments in information and communication technology made these activities economically profitable. However, in order to be successful players in a global financial market, the banks in the Netherlands had to realise economies of scope and scale, first nationally and then internationally. Growth was stimulated by the abolishment in 1990 of the ban on banking-insurance mergers, paving the way for the creation of large financial conglomerates. Immediately after the prohibition was lifted, a process of mergers and acquisitions ensued (Van der Zwet, 1999, see Table 2). In fact, the Netherlands was one of the pioneers in the area of ‘Bancassurance’. Growth was not only realised cross-sector but also cross-border by expanding international activities.

In what follows, we compare the financial structure in the Netherlands with that in a selection of other countries. The other countries have been chosen so as to represent systems with different characteristics as far as the financial sector and its supervision are concerned. Thus, Sweden has experienced a large scale banking crisis and established a single regulator in response, the UK did not experience a systemic crisis but established a single supervisory authority after the Barings debacle, Italy has a history of state-owned banks and has not made fundamental changes to its supervisory system, and Germany differs from the Netherlands in that it has a remarkably low degree of bank concentration and a history of state-owned banks (Garcia and Prast, 2003).

Figure 1 illustrates the concentration in the banking sector in the Netherlands as compared to that in Germany, Italy, Sweden and the UK. The measure used is the assets of the five largest banks as a percentage of total bank assets. From the figure it can be concluded that bank concentration in the Netherlands is high as compared to the other countries in our sample. This conclusion is not sensitive to the number of large banks included in the nominator of the measure. That is, a similar picture emerges if instead of the five largest banks the ten or fifteen largest banks are included. Figure 1 also clearly shows the increase in the concentration in the banking industry during the 1990s in the various countries, with the notable exception of Germany and the UK.

Figure 1 Concentration in the banking sector. Assets of five largest banks as a percentage of total bank assets



Source: Authors' calculations based on OECD and ECB data

Another approach to measuring bank concentration is by using the Hirschman-Herfindahl Index (HHI). This index is based on the distribution of a financial market among its various financial institutions. The HHI-index is formally represented by:

$$HHI = \sum_{i=1}^{n} s(i)^2,$$

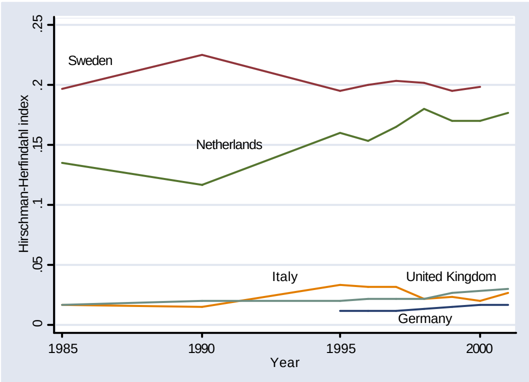
where s(i) is the market share of financial institution *i*. The index varies between 1/n and 1, with n being the number of credit institutions. [6] The HHI uses all information and it therefore gives a fuller insight into market concentration in any given country. A higher HHI indicates a more concentrated market.

Figure 2 gives the HHI for the period 1980-2001 for the countries mentioned above. The Figure shows that, measured by the HHI, bank concentration in the Netherlands and Sweden is about ten times as high as that in the other countries in the sample. Figure 2 also clearly shows that bank concentration, if measured by the HHI data, remained fairly constant over the period 1985-2000 in

[6] See Bikker (2004) for a comprehensive analysis of concentration in the European banking markets.

all countries in our sample, except for the Netherlands. This reflects the merger wave in the 1990s in the Netherlands, which was not limited to bank-insurance mergers (See Table 2 below).

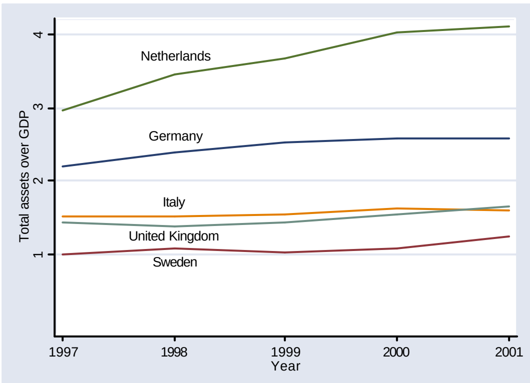
Figure 2 Bank concentration in five EU-countries: the Hirschman-Herfindahl Index, 1980-2001



Source: Authors' calculations based on OECD and ECB data

In order to get a grip on the importance of the banking sector for the economy as a whole, Figure 3 gives the assets of the banking sector relative to GDP in the Netherlands and selected other European countries in the years 1997-2001. From Figure 3, two important conclusions can be drawn. First, the importance of the banking sector as measured by assets to GDP is by far the highest in the Netherlands, closely followed by Germany. Second, whereas over the period 1997-2001 the ratio of bank assets to GDP has remained more or less constant in Germany, Italy, the UK and Sweden, it grew considerably in the Netherlands. Here, bank assets, on a consolidated basis amounted to 300% of GDP in 1997 and increased in relative size to over 400% of GDP in 2001.

Figure 3 Importance of the banking sector: assets over GDP

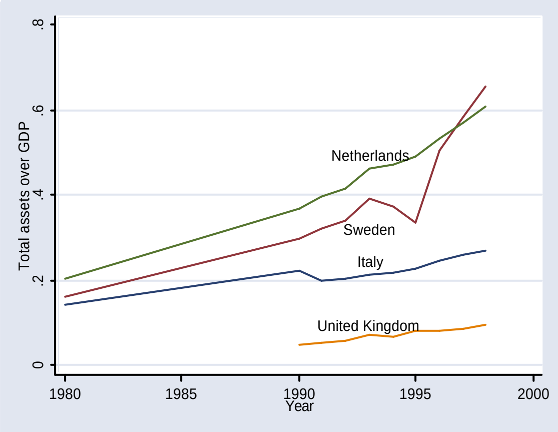


Source: OECD, ECB

From this bird's eye view of the bank structure in our selection of European countries it can therefore be concluded, that the Netherlands is characterized by a banking sector which is both very important in terms of GDP, and highly concentrated.

Having presented the main characteristics of the banking sector in the Netherlands in comparison to a selection of other European countries, we now turn to the insurance sector in the Netherlands and abroad. The economic importance of the insurance sector seems to be much smaller. This is not only because the insurance sector is smaller in size, but also because banks are crucial to the payment system and therefore much more important to economic performance and to financial stability. Nevertheless, some interesting conclusions can be drawn from data on the insurance sector over time and in an international comparison.

Figure 4 Importance of the insurance sector: assets over GDP



Source: Group of 10 (2001)

Figure 4 graphs, for the countries in our sample, the ratio of assets over GDP in the life insurance business.[7] The figure shows that in the Netherlands and Sweden, an increase in the relative importance of the life insurance sector size took place in the period under consideration. Comparing the Netherlands with the other countries in the sample, it can be concluded that the life insurance business, when measured in assets over GDP, is much more important in the Netherlands than in Germany and the UK. In fact, the assets of the Dutch life insurance business amounted to about 60% of GDP in 1998. A possible explanation is the link between life insurance and mortgages. Mortgage interest payments in the Netherlands have a generous tax treatment, as they are fully deductible from taxable income. As a rule, home-owners link their mortgage to a life insurance. With real estate prices in the Netherlands rising sharply as from the early 1990s, it comes as no surprise that the life insurance business has gained importance. Moreover, during the stock market boom that took place in the mid 1990s, many homeowners took a second or even a third mortgage on their home, using the loan to buy stock, thus benefiting from the tax deduction while at the same time expecting to receive high returns on their stock market investments (Stokman and Van Rooij 2000; Van Els, Van den End and Van Rooij, 2003). The mortgages used for this purpose, too, were often linked to a life insurance product.

After the lifting in 1990 of the prohibition for banks and insurance companies to merge, an explosion of mergers and take-overs took place, many of these being cross-sector. Table 2 gives an overview of the most important mergers since 1990.

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[7] The non-life insurance sector is less important in size. Moreover, whereas life insurance is a savings product, non-life insurance does not have characteristics that are similar to savings products.

Table 2 The emergence of financial conglomerates: mergers and acquisitions in the financial sector in the Netherlands, 1989-2004

1989	Merger of NMB Bank and Postbank into NMB-Postbank
1990	Acquisition by Rabo-bank of insurance company Interpolis
	Merger between insurance company AMEV and savings bank VSB Group, followed by the merger with Belgian insurance group AG into the later Fortis bank
	Merger of insurance companies De Centrale Verzekeringen and Condordia beheer, and savings bank Algemene Spaarbank Nederland (ASN) into Reaal Groep.
	Merger of NMB-Postbank Groep bank with insurance company Nationale Nederlanden into Internationale Nederlanden Groep (ING)
	Strategic alliance between Rabobank and the fund managing company Robeco
	Acquisition by Fortis of the Belgian credit institution NMKN [8]
	VSB/Fortis participate in Belgian savings bank ASLK
1994	Merger of SNS bank with insurance company NOG Verzekeringen into SNS Groep
1995	ING takes over Barings Bank
1997	Rabobank buys 50% of the shares in holding company Robeco
	Acquisition by Fortis of the Dutch bank MeesPierson
	Merger between SNS Groep and Reaal Groep
	Take-over by ING of US investment bank Furman Selz, US insurance company Equitable of Iowa and Belgian Bank Brussel Lambert.
	Acquisition by Fortis Bank of the Belgian Generale Bank; announcement of reorganisation, with bank activities brought in Belgian daughter Fortis AG and insurance activities in Dutch Fortis AMEV
1998	ING takes a first stake in BHF-Bank, which is to be increased (1999)
2000	ING acquires ReliaStar and Aetna
2001	ABN-Amro acquires ING Barings Businesses in USA
	ING buys Bank Slanski (Poland) and the Mexican insurer Suguros Comercial America
2003	Joint venture in bancassurance ABN AMRO and Delta Lloyd

Source: Van der Zwet (1999) and authors' update

The mergers across the traditional borders between financial sectors created what are commonly known as financial conglomerates. The consolidation of the financial sector has not been a purely Dutch trend but also visible in other countries over the last decade (Group of 10, 2001). Most recent mergers and acquisitions involved firms competing in the same industry and country. Nevertheless, a number of highly complex financial institutions that operate across many sectors and countries have been formed. Well-known examples of groups active in more than one sector are, for instance, Citigroup-Travelers, Credit Suisse-Winterthur, Dresdner-Allianz, ING Group, and Fortis. A primary motive for financial consolidation seems to be revenue enhancement and cost savings. Consolidation has been encouraged by improvements in information technology, financial deregulation, globalisation of markets, and increased shareholder pressure for financial performance.[9] Various domestic regulatory regimes and corporate and national cultural differences are, however, discouraging consolidation.

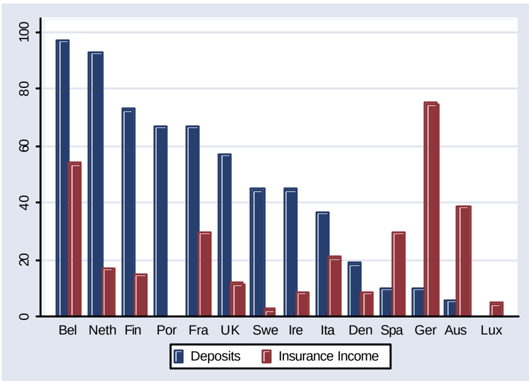
An obvious definition of a financial conglomerate is a group of firms that predominantly deal with financial intermediation (i.e. banks or insurers) or what the OECD (2004) terms "Financial Groups". In financial regulation, however, fico has acquired a slightly different meaning: it has come to mean a group of firms that engage in financial activities that have been kept separate, by law and regulation, for many years in many countries. In fact, in many countries combinations of

[8] NMKN stands for Nationale Maatschappij voor Krediet aan de Nijverheid (National Society for Industrial credit)
[9] See Van Lelyveld and Donker (2002) for a discussion of the motives.

some of these activities –banking, securities trading, and insurance– are still forbidden. The Group of 10 gives the following definition: "any group of companies under common control whose exclusive or predominant activities consist of providing significant services in at least two different financial sectors (banking, securities, and insurance)." (Group of 10 (2001)).[10] In discussion of this subject on the EU-level, the European Commission is proposing a more precise definition, in two steps: first, a group only qualifies as a financial conglomerate if more than 50% of group-activities is financial and, secondly, if the shares of the banking-sector (including security-activities) and the insurance-sector in the total of the financial activities are within the range 10%-90%. In addition, if the minority share has a balance sheet larger than 6 billion euro, the group also qualifies as a financial conglomerate. If the group is headed by a non-regulated entity, it is called a mixed financial holding.

In Europe, financial conglomerates have captured significant market shares in a number of countries and markets. Using the EU-definition, Figure 5 shows for a number of European countries the market shares held by financial conglomerates in banking and insurance.[11] As Figure 5 shows, the market share of financial conglomerates in the Netherlands as measured by deposits, which are a traditional bank product, amounts to 93%, and is higher than in most of the other EU-countries. For the insurance market, taking life and non-life insurance together, the market share is, with 17%, about the median of the sample. These figures reflect the different degree of concentration in the banking and insurance sector, respectively, in the Netherlands, and imply that financial conglomerates are important in the Dutch financial landscape, notably in the banking sector, both in absolute terms and in an international comparison.

Figure 5 Bank and insurance market share of financial conglomerates, 2000



Source: Bankscope, ISIS. Market share for deposits is defined as the percentage of total deposits and for insurance it is defined as the percentage of total gross premiums attributable to financial conglomerates

Summing up, the following conclusions can be drawn regarding the size and structure of the financial sector in the Netherlands against the light of the financial sector in the other EU countries in our sample. First, the Netherlands is characterised by a large, and growing size, of the banking

[10] Other definitions are also possible: de Luna Martinez and Rose (2003) also consider financial conglomerates to be any combination of financial firms, even if these are all within a single sector.

[11] Here, we use the simple measure of market share, namely deposits and insurance income of financial conglomerates as a percentage of total deposits and total insurance income.

and life insurance sector as compared to that in a selection of other EU countries. Second, the banking sector in the Netherlands is characterised by a high and growing degree of concentration, both measured by the simple measure of assets of the five largest banks in relation to total bank assets or by the HHI-index. Third, cross-sector linkage is relatively high and important in the Netherlands, especially for the banking market. Fourth, the financial sector is quite an important sector, relative to other countries. As we will see in the remainder of this paper, these typical characteristics for structure, size and relative importance of the financial sector in the Netherlands is one of the main reasons why the old model of supervision, with each sector having its own supervisor, was outdated, and why a choice has been made for an integrated prudential supervisor within the central bank.

4 Changes in the architecture of financial supervision in the Netherlands: 1990-2005

The developments in the structure of the financial sector in the Netherlands described in the previous Section – notably a blurring of distinctions between institutions and the birth of financial conglomerates – went hand in hand with the first steps in a process towards more co-operation between the financial supervision authorities in the Netherlands. This culminated in the establishment of a function-based model of financial supervision in 2002 (Twin Peaks) and in a merger between the central bank and the pension and insurance board in 2004. The present section describes these developments in the institutional design of financial supervision.

The emergence of financial conglomerates called for more co-ordination between the banking and insurance authorities. In fact, in 1990 the Bank and the insurance supervisor (Verzekeringskamer) concluded a Protocol in order to ensure adequate supervision of financial conglomerates. The basic idea of the Protocol was that the banking and insurance branches of a financial conglomerate were each to be supervised by their respective authorities. The Protocol established rules for the conditions to be fulfilled by conglomerates in order to be granted an authorisation (a declaration of no objection for holding a bank and an insurance company) and obliged the supervisors to exchange information. Depending on whether the conglomerate was primarily engaged in banking or in insurance, it was to be the banking or the insurance supervisor, respectively, that should decide upon minimum solvency requirements at the holding company level. Still, the holding company was required to inform both supervisors about its financial position on a consolidated basis. The reasons behind the Protocol were twofold. In the first place, effective supervision of financial conglomerates required there to be no ‘blind spots’, that is activities and segments that were left unsupervised because each supervisor believed the other supervisor to be responsible. Second, efficient supervision should prevent overlap between the activities of the two supervisors in order to keep the administrative burden and supervision costs low.

Changes in the international playing field also influenced financial supervision. The internationalisation of the financial sector prompted supervisors worldwide to intensify their contacts and co-operation. Although supervision remained a national responsibility, it became constrained by international agreements and regulations. Particularly the legislation agreed upon in the EU resulted in a number of legislative changes. In 1992 in the Netherlands a new Act on the Supervision of the Credit System was drawn up in order to adapt legislation to the demands of the single market for financial services in the EU. Thus, the new Act legalised the principle of home country control within the EU. It also widened supervision to the administrative organisation of credit institutions.[12] An adjustment to the Act on the Supervisions of the Credit System was made in 1995 when the Deposit Insurance Scheme had to be revised according to the EC directive on this matter. There was a third factor influencing financial supervision from 1990 onward. Financial integrity issues gained importance in the area of financial market regulation and supervision. This was reflected in the 1992 Act, which introduced additional requirements with regard to the ability and integrity of managers of credit institutions (Fit-and-Proper criteria). Thus, it was stipulated that in order for a credit institution to be granted a license, the expertise and integrity of its high-level officials should be beyond doubt (Mooij and Prast, 2003).[13] In 1994, the Act on Supervision of the Credit System was amended with respect to the supervision of financial conglomerates, and an amendment with regard to the exchange of information with other supervisory authorities took place in 1996.[14] Both were directed at a formalisation of the practice of co-operation and co-ordination in the field of prudential supervision by DNB and the Pension and Insurance Board. In view of the establishment of the Economic and Monetary Union and the single currency on January 1, 1999, a new Bank Act was adopted in the Netherlands in 1998.[15]

In some countries, developments in the financial environment had prompted the authorities to consider changing their supervisory structure. In many of those countries the rethinking of the architecture of financial supervision was preceded by one or more bank failures. Not only did these failures trigger a debate about the optimal supervisory regime, they also harmed confidence in the banking supervisor, usually the central bank, which was accused of not having been able to prevent the failure(s). Whether or not this criticism was justified, it did harm the reputation of the banking supervisor/central bank. As confidence in the financial supervisor's ability is essential for stakeholders of financial firms and for market participants, the debate about who was to blame for the banking crisis often resulted in supervisory responsibilities being transferred to a new supervisor who, of course, had to establish a reputation, but was at least able to start with a clean slate. In fact, some countries openly admit that the establishment of the new supervisor was a response to a banking crisis (De Luna Martinez and Rose, 2003). Others, notably the UK integrated authority, cite developments in the structure of the financial sector as the main motivation, although it is obvious that a harmed reputation of the central bank as supervisor – in the UK as a result of Barings – played a role too.

In the Netherlands, such issues were not at stake, as banking failures were virtually absent and DNB had a good reputation both as banking supervisor and as authority responsible for financial and monetary stability.[16] However, the blurring of distinctions between banking, insurance and securities activities in the Netherlands called for a further reflection on the optimal institutional

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[12] For a detailed description of the history of deposit insurance in the Netherlands, see Garcia and Prast (2003).

[13] The expertise is tested prior to the appointment on the grounds of education, professional experience and references. The trustworthiness is tested both on the basis of the references given and on the information available to the Bank or other supervisors in the financial sector. In addition, police records may be consulted. Furthermore, on applying for authorisation the applicant should give detailed information about the number, the names and the past history of the persons who determine the day-to-day policy of the institution.

[14] In 1994 two new, separate Acts entered into force, the Unusual Transactions Notification Act and the Identification Financial Services Act, aimed at preventing the financial system from being used for money laundering. This was followed by the Exchange Offices Act, which entered into force on 1 January 1995. From now on exchange offices had to be registered by the Bank and were subject to prudential supervision.

[15] As for pension and insurance supervision, in 2001 the Insurance Supervisory Authority was given a different name that was a better reflection of its work. It was called the Pensions and Insurance Supervisory Authority of the Netherlands (Pensioen- & Verzekeringskamer), the PVK.

[16] The BCCI scandal did leave its traces in the Netherlands, but press and public did not associate this with supervision in the Netherlands. See the Appendix for a full list of bank failures.

structure of supervision. This need for rethinking the architecture of financial supervision was not only evidenced by mergers and acquisitions between banks and non-banks (notably insurance companies) and therefore the birth of financial conglomerates, but also by the characteristics of new, increasingly complicated financial products. Initially, the Netherlands did preserve the existing institutional set-up, with regulation and supervision of the banking system entrusted to the central bank, and with insurance and securities firms having separate supervisors. As for the securities industry, supervised by the STE, its self-regulation was gradually transformed, between 1988 and 1997, into regulation by a powerful public institution (though financed by the sector and not through public funding). This transformation was motivated by a growing awareness of the importance of integrity in financial markets, by suspicions about insider trading, and by international competition and regulation abroad. At a later stage, the position of the STE would be further strengthened, and finally the organisation would change its name to Authority for the Financial Markets (AFM) and would, as one of the Twin Peaks in the new model, become responsible for conduct-of-business supervision of the financial sector. Initially, the securities supervisor was responsible for the Investor Compensation Scheme, a safety net for investors, but this responsibility was transferred to DNB in 2003, with the aim of integrating the investor compensation scheme with the deposit insurance system (Garcia and Prast, 2003).

The further blurring of distinctions between different types of financial firms and products called for more co-operation between the three supervisors. In 1999 a council of the banking, insurance and securities supervisors was established. The aim of this Council of Financial Supervisors (Raad van Financiële Toezichthouders) was to give an additional impulse to cross-sector co-operation between the financial supervisors. The Council was not a decision-making body on supervisory and regulatory issues, but a forum for discussion and further co-operation in the field of cross-sector regulatory and supervisory issues. Among the prominent issues on the agenda of the Council at the time of its establishment were financial integrity and consumer protection. As more small and less sophisticated investors entered the markets while increasingly complicated financial products became available, the protection of consumers of financial products became more important. Also, society became increasingly aware of the potential harmful effects of a lack of integrity in financial markets. The three supervisors recognised the need for regulation of the quality of the information offered by suppliers of financial products. Their co-operation resulted in the requirement, as of 1 July 2002, that complex financial products be accompanied by a standardised Financial Information Leaflet, describing the key features, including their risk characteristics.

Table 3 sums up the major changes in the regulation and supervision of the financial industry in the Netherlands from 1990 onwards. The large number of changes in regulation during this period is driven by the rapid speed of change in the financial environment.

Table 3 Landmarks in financial regulation and supervision in the Netherlands: 1990-2004

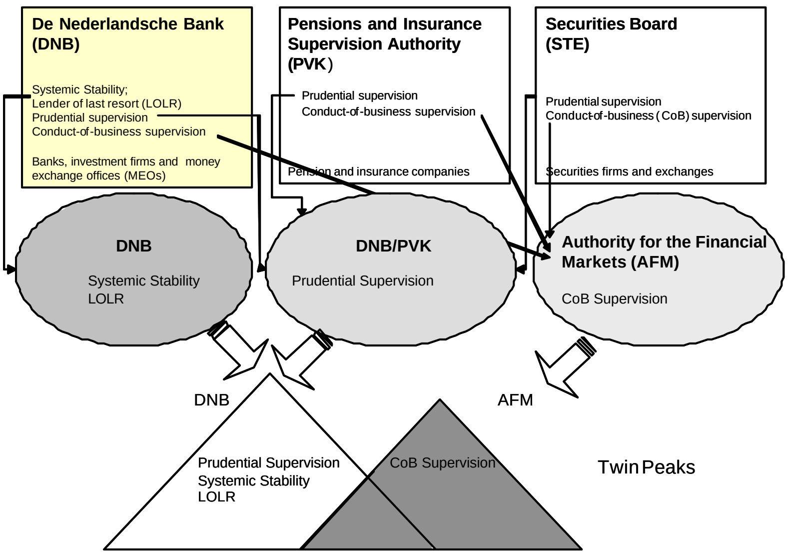
1990	Removal of barriers to financial conglomerates
	Protocol on the Supervision of Financial Conglomerates
1992	New Act on the Supervision of the Credit System
	Insurance Supervisory Authority turns into an Independent Public Institution
1993	Revised Protocol on the Supervision of Financial Conglomerates
	Insurance Business Supervision Act
1994	Exchange Offices Act; Unusual Transactions Act
	Amendment to 1992 Act with Regard to Supervision of Financial Conglomerates
1995	Amendment to 1992 Act with Regard to Deposit Insurance
	Act on the Supervision of the Securities Trade
1996	Amendment to 1992 Act Regarding Exchange of Information Between Supervisors
1998	New Bank Act with Respect to EMU
1999	Council of Financial Supervisors
	Amendment to 1992 Act with Respect to the Provision of Information to the Public
2001	Insurance Board changes its name to Pensions and Insurance Supervisory Authority (PVK)
	STE changes its name into Authority for the Financial Markets (AFM)
2002	New Institutional Structure of Financial Supervision: Twin Peaks model, with DNB and PVK responsible for prudential supervision, and AFM responsible for conduct-of-business supervision
	Memorandum of Understanding (Convenant) between Prudential and Conduct-of-business Supervisors
2003	Responsibility for Investor Compensation Scheme transferred from AFM to DNB
2004	Reorganisation within DNB; establishment of a separate Financial Stability Division
	Responsibility for the supervision of trust companies entrusted to DNB
	Merger between DNB and PVK
	Council of Financial Supervisors replaced by covenant
	Introduction of new financing structure of financial supervision by DNB; banks to contribute in cost of supervision
2005	New Financial Supervision Act (replaces inter alia the Act on the Supervision of the Credit System 1992, the Insurance Business Supervision Act 1993, and the Act on the Supervision of the Securities Trade 1995); will also provide integration of the various safety nets for financial consumers

In 2002, a major change took place in the institutional structure of financial supervision in the Netherlands. The old model, which was organised by sector with each sector having its own supervisor, was replaced by a model with supervision on a cross-sector basis in line with the main objectives of financial supervision: systemic stability, prudential supervision and conduct-of-business supervision. DNB retained the responsibility for the prudential supervision of banks, while the PVK remained responsible for the prudential supervision of insurance firms and pension funds. As was mentioned earlier, the Authority for the Financial Markets was given the task of supervising the conduct-of-business of all financial markets and frms, including banks and insurance companies.

In the new set-up introduced in 2002, DNB remained responsible for systemic stability. The responsibility for prudential supervision was taken care of by DNB and the Pensions and Insurance Supervisory Authority, who worked closely together, especially in the prudential supervision of financial conglomerates. As a separate supervisor, the Netherlands Authority for the Financial Markets (Autoriteit Financiële Markten) was, as the successor of the STE, made responsible for conduct-of business supervision on a cross-sector basis. A Covenant between the three supervisors, which entered into force in September 2002, established further rules for their co-operation and co-ordination, within the legal framework (De Nederlandsche Bank *et al*., 2002). Thus, the Bank, on the one hand, and the Pensions and Insurance Supervisory Authority on the other became jointly responsible for licensing of banks and insurance companies, whereas the Authority for the Financial Markets was granted this responsibility with regard to securities.

The cross-sectoral design of financial supervision, introduced in the Netherlands in 2002, had implications for the financing structure of supervision. Traditionally, banking supervision was paid for by the taxpayer. DNB had, in the past, used its seigniorage revenues to cover the costs of bank supervision and had, therefore, not imposed charges on credit institutions for these services. Insurance companies, pension funds and securities firms, however, did pay to cover the costs of their supervisors. In return, credit institutions collected much of the information needed for the national accounts. As in the new model the design of financial supervision is not industry-based but objective-oriented, it was only natural that the financing structures of supervision across the various industries would be made more consistent. The debate about how the cost of financial supervision should be covered, has resulted in a change in the financing structure of financial supervision. From 2004, banks are charged for supervision costs. However, part of the costs for prudential supervision will continue to be financed by the taxpayer, as a stable financial system is regarded to be conducive to economic growth and stability. These externalities justify that the taxpayer contributes to the cost of supervision.

Figure 6 Development of the financial sector supervisory architecture in the Netherlands



A further step toward integration of prudential supervision was taken in 2004 when DNB and the PVK merged into a single prudential supervisor, which goes by the name of DNB. Figure 6 illustrates the transition from the old, sector-based model (valid until 2002) to, first, the transitory model for the period from 2002 through 2005, and then finally to the new Twin Peaks architecture of financial supervision in the Netherlands. It should be stressed that despite the institutional separation, co-operation between the prudential supervisors on the one hand and the conduct-of-business supervisor on the other is crucial, as some issues, for example financial integrity, have both prudential and conduct-of-business dimensions. The Council of Financial Supervisors has ceased to exist and is replaced by a covenant between the two supervisors.

5 The New Architecture of Financial Supervision in the Netherlands: an assessment.

The previous Sections have described the changes that took place in the financial sector in the Netherlands and in the institutional design of its supervision. The purpose of the present Section is to, first, provide an assessment of the new architecture of financial supervision in the Netherlands and, second, to explain why the Netherlands has chosen the Twin Peaks model. In this design, the central bank is responsible for both systemic stability and, after its merger with the Pensions and Insurance Authority, for prudential supervision of all financial institutions and markets, while the responsibility for conduct-of-business supervision is allocated to a separate supervisor, the Authority for the Financial Markets.

Financial supervision should meet three criteria, which we will use to assess the new Dutch model. Supervision should be (1) *effective*, (2) *efficient* and (3) *market-based*. Effectiveness implies that supervision should meet the objectives of systemic supervision, soundness of financial institutions and proper conduct of business, including market transparency. Efficiency requires that the overlap between the tasks of the different supervisors should be kept to a minimum and that the administrative burden of the supervised institutions should be restricted. Market-based implies that markets should be as undistorted as possible, and that institutions can compete in a level playing field. This requires that market discipline be given a role, and that supervision be risk-based.

The institutional framework of financial supervision in any given country should be designed to enable supervision to meet the three criteria mentioned above. However, market discipline and risk based supervision are not so much dependent on the architecture, but rather on the content of regulation and supervision. Supervisory and regulatory arrangements should make individual institutions and the system as a whole as safe as possible while at the same time limiting the efficiency loss that market distortions inevitably bring about. To a large degree, these arrangements can be developed within any institutional design of supervision, provided that there is (international) co-ordination between supervisors to guarantee a level playing field and to prevent regulatory arbitrage. Challenges to DNB regarding risk-basing will be dealt with in Section 6. The present Section concentrates on the pros and cons of the new Twin Peaks model from the perspective of efficiency and effectiveness.

Table 4 summarises arguments in favour and against integrated functional supervision. It is partly based on a study by the World Bank (De Luna Martinez and Rose, 2003). We use the number of asterisks to indicate the relevance of the various pros and cons for the Netherlands.

Table 4 Arguments in favour of and against integrated functional supervision

	Arguments in favour	Relevance for the Netherlands
Fis1	Facilitates supervision of financial conglomerates on a consolidated basis	****
Fis2	Allows better monitoring of issues affecting the entire financial system	***
Fis3	Allows rapid policy responses.	***
Fis4	Reduces regulatory arbitrage	**
Fis5	Maximizes economies of scale and scope: efficiency criterion	**
Fis6	Strengthens accountability of supervisors	**
Fis7	New Integrated supervisor starts with clean slate	*

	Arguments against	Relevance for the Netherlands
Ais1	Merger process may result in lower supervisory effectiveness during transition period	*
Ais2	May undermine effectiveness of supervision by not recognizing unique characteristics of the banking, securities and insurance industries	*
Ais3	May be more suited for developed financial systems	*
Ais4	Too much concentration of supervisory power in one institution	**
Ais5	Inconsistency in supervisory treatment of different sectors may not disappear	**
Ais6	One approach may dominate others if merged institutions greatly differ in size	**
Ais7	Difficult to strike balance between objectives (systemic risk, micro-prudential, conduct-of-business	*

Given the structure of the financial system in the Netherlands, as described in Section 4 of this paper – that is, the formation of financial conglomerates, the importance of the financial sector in terms of assets over GDP and the high degree of concentration –, it is obvious that arguments Fis1 through Fis3 are highly relevant for the Netherlands. Thus, the consideration that in the new model it is easier to ensure that supervision of financial conglomerates is consistent across sectors was considered an important issue in the overhaul of the architecture. Similarly, in the new model the system as a whole is better monitored, and the integration facilitates policy responses to financial sector problems. Arguments Fis4, Fis5 and Fis6 are only moderately relevant. The new model reduces regulatory arbitrage (Fis4), although the Protocol and the Council of Financial Supervisors in the old model did already provide some co-ordination to prevent arbitrage. As for Fis5, supervision was not that much fragmented, with banking supervision already entrusted to the central bank. With respect to accountability (Fis6), the Netherlands had already drawn up a Protocol regarding the supervision of financial conglomerates in 1990, and so the responsibilities of the insurance and banking supervisor were reasonably well defined. Argument Fis7 does not play a role in the Netherlands, as none of the existing supervisors in old framework had its reputation seriously damaged by scandals or crises.

As for the arguments against integrated supervision, Ais1, Ais2, Ais3 and Ais7 are less relevant for the Netherlands. The transition period has gone by without a loss of effectiveness of supervision. The small size of the Dutch financial sector enables the integrated supervisors to keep in close touch with the different institutions and sectors. In fact, the intensity of the "supervisory review" of banks in the Netherlands has traditionally been considerable. The high degree of banking concentration in the Netherlands, with only a small number of banks, facilitated intensive and on-site supervision. This contrasts for example with the situation in Germany, where the large number of banks have in the past made the supervisor choose a more off-site based mode of supervision. As for Ais4, in the new model two institutions are responsible for financial supervision; hence there is no concentration of power in one institution responsible for all supervision. On the other hand, one might argue that in the Netherlands too much power is concentrated within the central bank. However, as we will point out below, it is questionable whether this is relevant, given that in the European Monetary Union the power over monetary policy is shared with the other member states. Moreover, for its supervisory tasks, DNB is not fully independent from the Ministry of Finance. Thus, the relationship between the Ministry and DNB as supervisor differs from that of DNB as monetary policy maker. To implement its duties, DNB operates in two different administrative-law forms. For defining and implementing monetary policy in the countries that have introduced the euro and for its payments system duties, DNB is part of the European System of Central Banks (ECB) and independent from policy makers. However, for prudential supervision of financial institutions and advising the Minister of Finance on export and import guarantees, DNB has the position of an Autonomous Administrative Authority. This implies that it has to submit a budget for approval by the Minister of Finance, after consulting the financial sector. It can be argued that argument Ais7, about the balance between the objectives of supervision, is irrelevant because there is a separate conduct-of-business supervisor in the Netherlands. As far as the balance between the objective of systemic risk and that of micro-prudential supervision is concerned, it is difficult if not impossible to draw a line between the two, given the structure of the banking sector in the Netherlands. Prudential concerns about one of the large banks automatically translate in to systemic concerns. In fact, this has been one of the main motivations for entrusting supervision to the central bank. Arguments Ais5 and Ais6 against integrated supervision are moderately relevant for the Netherlands. We regard these as challenges for DNB and deal with them in the next section.

All in all, it can be concluded on the basis of Table 4 that in the Netherlands the arguments in favour of integrated functional supervision outweigh those against integrated supervision. However, as has been pointed out earlier, the typical characteristic of the new design of supervision in the Netherlands is, that integrated prudential supervision is entrusted to the central bank. An assessment of the new structure should therefore also pay attention to the pros and cons of combining the responsibility for prudential supervision of the financial sector with that for monetary policy, the function of lender-of-last-resort, and the responsibility for oversight of the payment system. These pros and cons, and their relevance for the Netherlands, are given in Table 5.

Table 5 Arguments in favour of and against entrusting prudential supervision to the central bank

	Arguments in favour	Relevance for the Netherlands
Fcb1	Systemic stability requires soundness of large institutions	****
Fcb2	Stability payment system depends on soundness banks	****
Fcb3	Good reputation central bank	***
Fcb4	Efficiency; lower overhead cost	**
	Arguments against	**Relevance for the Netherlands**
Acb1	Price stability may suffer from LOLR activity	*
Acb2	Monetary policy dictated by bank profitability considerations; moral hazard banks	*
Acb3	Concentration of power	**
Acb4	Bad reputation central bank	*
Acb5	Loss of confidence in central bank if institutions fail	**

As for the arguments in favour of entrusting prudential supervision to the central bank listed in Table 5, Fcb1, Fcb2 and Fcb3 are highly relevant for the Netherlands. The choice in the Netherlands to maintain a structure in which prudential supervision of banks is entrusted to an institution within the central bank is motivated by the highly concentrated structure of the banking sector in the Netherlands. In fact, as described in Section 3, the degree of banking concentration in the Netherlands is indeed quite high, with a small number of very large institutions dominating the banking sector. In view of the structure of the banking sector in the Netherlands, it is obvious that the failure of one of the large banks might endanger systemic stability. Given that the central bank is ultimately responsible for the stability of the system and acts as the lender-of-last-resort, this implies that for the Netherlands an effective solution is to entrust responsibility for both micro- and macro-prudential supervision to an institution within the central bank (Brouwer, 2002). As for Fcb2, it may be argued that it is advantageous that the responsibility for the payment system is in the hands of an institution that keeps a close watch on both the banking system and a whole and on individual banks, especially as the failure of a large bank might disrupt the payment system. Fcb3 has to do with the reputation of DNB. Effectiveness of supervision requires that the supervisory authority or authorities do have, or are able to quickly acquire, a solid reputation in the eyes of both the institutions under supervision and the stakeholders of these institutions. Otherwise, it might be difficult if not impossible for the supervisor(s) both to gain respect from and compliance of the institutions under supervision and to create and maintain confidence of the stakeholders, including the consumers of financial products, in financial institutions and markets. For the situation in the Netherlands, it is therefore a strong consideration that DNB has a reputation which is not harmed by serious bank failures or a banking crisis. Finally, with regard to Fcb4, it might be argued that for a small country such as the Netherlands, it would seem to make little administrative sense to establish a separate, independent body (Garcia and Prast, 2003). Moreover, and that may even be more important from the point of view of efficiency, there was no need to establish a new reputation and the new structure benefits from the reputation regarding monetary and financial stability (macro and micro) in the Netherlands.

As listed in Table 5 there may also be drawbacks to having financial supervision entrusted to the central bank. First (see Acb1), a potential conflict between monetary stability and financial system stability arises as a result of the lender-of-last-resort function of the central bank. If individual banks, or the banking system as a whole, should encounter difficulties and turn to the central bank for liquidity support, this in its turn may force the central bank to *“de-emphasize its price stability objective at least temporarily in order to perform its lender of last resort function”* (Cukierman, 1997). However, monetary stability is entrusted to the ECB. Carefully designed mechanisms are developed to ensure that lender-of-last resort actions of National Central Banks do not disturb monetary conditions in the euro area. Second (Acb2), entrusting supervision to central banks may create moral hazard by the banking sector (Freixas and Rochet, 1997). Commercial banks may believe that the central bank, in its role as prudential supervisor, takes the effect of its interest rate decisions on bank profitability into account. Interest rate increases may adversely affect bank profits, as banks liabilities are short term and bank assets long term. The expectation that a central bank/supervisor will be reluctant to raise interest rates may create an incentive for banks to take on too much interest rate risk through a mismatch between assets and liabilities. This argument is similarly irrelevant to the Netherlands, as interest rate decisions are taken by the ECB. It is difficult to imagine that these decisions would be affected by any concern about bank profitability in the Netherlands as a result of DNB being the prudential supervisor. As a third argument against entrusting supervision to the central bank, it can be argued that there is too much concentration of power if a central bank is responsible for monetary policy, the payment system, system stability and financial supervision. However, as DNB shares responsibility for monetary policy with the other EMU member countries, this argument loses some of its force. This will become even more the case, as it can be expected that, upon the entrance of new member states, DNB will not be permanently represented in the ECB Governing Council. A fourth argument against entrusting financial supervision to the central bank is, that if the central bank were to have a bad reputation in terms of monetary and/or financial stability, entrusting prudential supervision of the financial sector to the central bank might be ineffective, as public confidence would be low or absent. However, given the good reputation of DNB and the Dutch history of financial stability, this drawback does not apply to the situation in the Netherlands (Prast, 2003). In fact, a recent opinion poll shows that public confidence in the financial system and individual financial institutions in the Netherlands is high. Finally, one might argue that if a central bank is also the financial supervisor, a failure of one or more individual institutions might harm its reputation not only as supervisor, but also as monetary policy maker and payment system supervisor. This argument is moderately relevant for the Netherlands, and we consider it to be a challenge that we will touch upon in Section 6.

Having summarised the pros and cons of integrated financial supervision and of entrusting prudential supervision to the central bank, and their relevance for the Netherlands, the conclusion is justified that the arguments in favour of the new Twin Peaks model introduced in the Netherlands far exceed the arguments against. However, there are some remaining challenges which will be discussed in the next Section.

6 Financial supervision in the Netherlands: challenges ahead

In the previous Section, an assessment of the new Twin Peaks model of financial supervision in the Netherlands was made. It was concluded that, despite the arguments being in favour of the new model, there are some challenges for DNB in the new set up. This section studies the relevant issues and the way DNB is trying to tackle potential problems related to the new financial architecture.

6.1 Supervision of financial conglomerates: consistency of supervisory practices

For financial conglomerates, the new Basle Accord and Solvency II will bring marked changes for the banking sector as well as in the insurance sector. Since the regulation and supervision of both sectors are now the responsibility of DNB, the challenge will be to make these two regulatory frameworks as consistent as possible. Presently, DNB is developing a so called Financial Assessment Framework (FAS) for pension funds and insurance firms. This framework is likely to form the basis for the implementation of the Solvency II legislation. Wherever possible, the terminology and classifications used in both the FAS and the Basle Accord are being made consistent.

Another area of interest to both DNB and financial conglomerates are developments in economic capital modelling. A well functioning economic capital model improves risk management through improved pricing and managerial compensation. For the supervisor, such a model provides a better picture of the risk profile of the entire conglomerate. Because of these shared interests, DNB and industry are currently working together on a comprehensive study of economic capital models.[17]

At DNB the integration of both banking and insurance line supervision has already taken place. This ensures that financial conglomerates only have to deal with a single supervisory team. Furthermore, although the risk analysis methodologies in use in both predecessors of DNB are very similar, merging the two approaches in to a single method in the future will unify the approaches to supervision across sectors even further.

6.2 Financial Stability

At first sight, it might seem that consolidation and conglomeration increases system stability because a large cross-sector institution might benefit from the gains of diversification. However, recent research suggest, that consolidation and conglomeration may in fact increase systemic risks (De Nicolo and Kwast, 2002; Minderhoud, 2003). In fact, new institutions and products have complicated the analysis of financial vulnerabilities. Moreover, there is a growing awareness that the solvency of individual institutions and the stability of the system as a whole do not automatically go hand in hand (Crockett, 2000). Thus, monitoring the solvency of the banks in the Netherlands is not sufficient to guarantee that the system as a whole is stable. Financial stability analysis requires systematic monitoring of both individual parts of the financial system, and cross-sector and cross-border linkages (Houben, Kakes and Schinasi, 2004). Such an analysis also needs to examine the degree to which the financial system can absorb shocks. Macro-prudential or

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[17] The first of a series of papers to be produced by the Working Group on Economic Capital was published as WECM (2003).

financial stability analysis involves a continuous examination of potential risks and vulnerabilities, including concentration risk and the second-round effects of financial instability (Borio, 2003; see van Lelyveld and Liedorp, 2004 for an example). From this perspective, it might be an advantage that prudential supervision in the Netherlands is entrusted to the central bank. The importance attached by DNB to financial stability issues is witnessed by the fact that DNB has set up a specialised Financial Stability Division which studies the interplay between prudential supervision on the one hand, and systematic and monetary stability issues on the other. So far, DNB is the first central bank within EMU to establish a specialised stability division.

6.3 Regulatory capture

Another challenge facing DNB is to avoid regulatory capture; a situation where an economic supervisor is captured by the institutions or interests that it is supposed to regulate. The supervisor identifies with the supervised institutions and tries to protect their interest, instead of being an impartial supervisor, serving the public good. It is commonly assumed that, once a regulatory agency has been, or has the image of being, captured, it is nearly impossible to earn respect from the supervised institutions and/or the general public. Originally, banking supervision in the Netherlands developed in the first decade of the twentieth century as 'paternal supervision', with an old boys' network making gentlemen's agreements (Prast, 2003). Although the 1952 Act on the Supervision of the Credit System formalised supervision, the current practice still bears traces of a consensus model. Before any supervisory measures are taken, extensive consultation with the supervised institutions takes place. Moreover, with the Netherlands being a small country and the banking system dominated by a few large and therefore powerful institutions, the risk for DNB of being viewed as an institution that is captured by the supervised institutions is not wholly imaginary. The fact that banks are from now on contributing to the cost of supervision further adds to the risk of being viewed as regulatory captured.

6.4 Reputation and communication

In view of the new model and the merger with the Pension and Insurance Board, DNB has felt the need to assess its reputation with the general public, the financial press and the institutions it supervises. Through an opinion poll among a representative sample of the Dutch population, DNB has aimed at assessing public confidence in its quality as a supervisor, in the financial institutions and in the financial system as a whole, concentrating on prudential aspects. The main conclusions of this survey are that DNB´s reputation is good and that confidence in the financial sector is high. However, the results indicate that there are some challenges to DNB. First, it turns out that there is some indirect potential contagion risk in the Netherlands through the confidence channel. That is, people indicate that if they were to lose confidence in one of the branches of a financial conglomerate, they would perhaps also lose confidence in other branches of the holding. Second, the poll results indicate that a majority of the population believes that supervision by DNB guarantees that no bank in the Netherlands will ever fail. Although this can be interpreted positively, as an indication that confidence in supervision is high, it also makes DNB vulnerable. The blind faith in DNB might lead to a sharp reduction in its reputation in case of a bankruptcy. Moreover, the large number of insurance companies in the Netherlands implies, that despite intensive supervision, it will be impossible to prevent that every now and then an insurance company may go bankrupt. Therefore, it can be expected that DNB will be associated in the future with failed institutions. This requires a careful reconsideration of the public relations and communication strategy.

6.5 Financial safety nets

Although DNB is not responsible for conduct-of-business, it does have the responsibility for the financial safety nets. Therefore, consumer protection is part of its agenda. One of the challenges is to integrate the various safety nets, and to make the systems conform to internationally accepted good practices. Garcia and Prast (2003) list the recommended practices of deposit insurance schemes and indicate whether they are followed by the protection schemes that are currently in operation in the Netherlands. They conclude, that in accordance with good practice, the systems of protection should have realistic objectives, operate in a good legal, financial, and political environment, are compulsory, have strong supervisory systems, are defined in law and regulation, and offer low coverage so as to give some role to market discipline. However, there are divergences from good practice in that there is no deposit insurance fund, premiums are not adjusted for risk, there is no explicit financial backing from the government, and the arrangements for members to share costs are unclear. Also, the fact that loans are offset may create liquidity problems for depositors and makes the system potentially vulnerable to runs. Finally, improvements could be made in governance structures, accountability, and public relations. DNB and the Ministry of Finance are currently assessing the system in the light of the new Act on Financial Supervision which is expected to be in place as of 2005.

7 Summary and conclusions

Since the adoption of the 1952 Act on the Supervision of the Credit System, the financial environment in the Netherlands has changed considerably. This influenced the way supervision was formalised. In the 1950s and 1960s the focus of banking supervision in the Netherlands was on monetary supervision. This changed with the liberalisation of capital markets and with the shift in monetary policy. From the late 1970s, banking supervision focused more on prudential supervision and consumer protection, and from the 1990s financial integrity, conduct-of-business supervision and financial stability gained importance.

The pace at which supervision in the Netherlands changed, has increased considerably. Since 1990 there has been a rapid succession of changes, some of which major, both in the legal framework and in the institutional structure of supervision. What stands out is that the recent changes in the architecture of financial supervision in the Netherlands have been inspired not by major banking crises or even individual bank failures, but by major changes in the structure of the financial sector. Based on the evidence presented in this paper, some tentative conclusions can be drawn as to why the Netherlands has changed its financial architecture, and why it has chosen a Twin Peaks model with prudential supervision entrusted to the central bank and conduct-of-business supervision entrusted to a separate supervisor. This model differs from that established in a number of countries that have recently adapted their institutional design of financial supervision or are in the process of doing so.

First of all, given the blurring of distinctions between financial sectors and products in the Netherlands since 1990, it was obvious that more co-operation was needed between the supervisors in the Netherlands both in the area of prudential supervision and in that of conduct-of-business supervision of the financial sector. An important reason for co-operation in the area of prudential supervision is that since sectoral prudential regulation might fail to capture the risk characteristics of a financial conglomerate as a whole, financial conglomerates call for a consolidation of prudential supervision. Moreover, the increase in the number of financial conglomerates has been accompanied by a blurring of the boundaries between products. A common example in the Netherlands is a mortgage combined with a unit-linked life insurance policy; this hybrid financial product embodies banking, securities and insurance components. Since different types of financial institutions can offer these complex financial products, they call for a harmonisation of prudential treatment of products. Such a harmonised approach safeguards the level playing field. Similarly, adequate conduct-of-business supervision requires that for similar products and markets, a similar regime is applicable, regardless of the sector of the supplier.

A recent DNB opinion poll among the Dutch population indicates that loss of confidence in one branch of a financial conglomerate, e.g. insurance, may trigger doubts as to the confidence in the other activities, e.g. banking.[18] This reinforces the need for co-ordinating supervisory practice to the highest degree possible. Obviously, the highest degree of co-operation in the field of either

[18] See De Nederlandsche Bank (2004)

prudential or conduct-of-business supervision is reached if there is a single prudential supervisor, and the same applies to the field of conduct-off-business supervision.

Secondly, especially in a highly concentrated banking system as that in the Netherlands, it is difficult if not impossible to draw a line, in practice, between the responsibility for systemic stability, including the function of lender of last resort, and that for prudential supervision. Moreover, it is no coincidence that with the development of new complicated products and the intensification of cross-sector and cross-border linkages, the attention for financial stability issues and the interplay between macro- and micro-prudential risks has increased. The choice in the Netherlands to maintain a structure in which the central bank is responsible for the prudential supervision of banks has to do with stability considerations. In view of the high degree of concentration of the banking sector, systemic and prudential supervision are appropriately placed within the central bank

Thirdly, the Netherlands was in the fortunate position that the existing supervisors, especially the central bank as the banking supervisor, did have a solid reputation, based on the history of financial and monetary stability in the Netherlands. Both from the point of view of efficiency and from that of effectiveness it would have been a waste of reputation to isolate prudential supervision from DNB as the traditional, high reputation banking supervisor in the Netherlands. In fact, changes in the financial structure, rather than financial scandals, prompted the authorities to opt for a new institutional framework of prudential supervision. In this respect, the situation in the Netherlands differs from that in some other countries, where banking scandals triggered changes in the architecture of financial supervision. As those scandals harmed the reputation of the incumbent banking supervisors, the establishment of a new authority seemed the appropriate response.

Finally, by choosing the Twin Peaks model, the Netherlands prevents concentration of power in a single institution. The responsibility for conduct-of-business supervision lies with the Authority for the Financial Markets. Furthermore, although DNB is responsible for monetary stability, this responsibility is shared with the whole ECB. What remains is the exclusive responsibility for oversight on the payment system and all prudential supervision.

Remaining challenges to DNB include the supervision of financial conglomerates, public relations strategy after the merger with the PVK, prevention of regulatory arbitrage, and the integration and modernisation of the financial safety nets. However, the new Twin Peaks model clearly reflects the continuing integration of financial institutions in the Netherlands and is therefore expected to provide a solid supervisory structure for the future.

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Appendix Bank failures in the Netherlands, 1912-2004

Year	Bank
1912	Industrie- en Handelsbank
1915	Girobank.
1918	S Bregma
1922	Zuidhollandsche Credietvereeniging NV
1923	Credietvereeniging de Hanzebank
1924	Industrie- en Landbouwbank
1924	Maas & Waalsche Bank Kneppers & Cie
1925	Firma P van Gastel & Zoon
1926	Bank voor Nederland en de Koloniën
1926	Merwedebank Dordrecht
1930	Centrale Middenstandscredietbank in het Bisdom Haarlem (Hanzebank)
1932	Mendelssohn & Co
1932	CV van Heel & Co
1932	Firma Scheurleer & Zoonen
1935	Zaanlandsche Bank
1936	Weduwe S Lakenman & Zoon's Bank NV
1947	Amstelbank
1961	Teixeira de Mattos
1962	`s Gravenhaagsche Middenstandsbank
1981	Amsterdam American Bank
1982	De Tilburgsche Hypotheekbank
1983	Westland-Utrecht Hypotheekbank taken over by Insurance Company
1985	Friesch-Groningsche Hypotheekbank taken over by Insurance Company

Source: Authors' data collected at DNB. Note, that up until 1948, there was no formal banking supervision and no formal Banking Supervision Authority. Informally, DNB acted as the 'paternal supervisor' and lender-of-last resort. See Prast (2002).

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