The organizational structure of financial supervision is, or has been, under revision in many countries—including the United Kingdom, Germany, the Netherlands, the United States, and Australia—in response to market developments. Several papers have been written about the different models adopted, either promoting a single model in isolation or comparing different models and concluding that there is no uniform best model, but that each should be seen within the context of its own financial system.¹

The purpose of this paper is to take the analysis one step further by focusing on the key question as regards the organizational structure: what are the pros and cons of combining different supervisory activities within one organization? In this context, we start by briefly describing the old and new Dutch supervisory models. The question is: how did we arrive at the new model? To answer this question, we take a closer look at financial market developments. We then compare cross-sector organizational models for financial supervision. We introduce a new framework for comparing these models and apply it to the functional model of the Netherlands and the integrated model of the United Kingdom. While confirming the familiar conclusion that there is no uniform best model,

¹ Briault (2002); Lumpkin (2002); Taylor (1995).
Figure 1 provides a broad overview of the old and new Dutch organizational models of supervision. The old model was sectoral, with a separate supervisor for banks, insurance companies, and securities firms. In 1999, a cross-sectoral element was added: the Board of Financial Supervisors (RFT), in which the existing supervisors share responsibility for cross-sectoral issues. The Board of Financial Supervisors developed cross-sectoral issues such as the supervision of financial conglomerates, the harmo-
nization of consumer information for financial products, and the harmonization of fit and proper management principles for financial institutions. During this process it became clear that cross-sector issues dominate the policy debate, and a consensus emerged that a more fundamental reform of the organizational structure of supervision would be necessary.

The new Dutch model—the “twin peaks” model—is based on the objectives of supervision. De Nederlandsche Bank (DNB) is responsible for financial stability, while the Authority for Financial Markets (AFM) specializes in conduct-of-business supervision.2 Financial stability is about promoting the safety and soundness of financial institutions and enhancing the stability of the financial sector as a whole. Conduct-of-business relates to promoting a fair and transparent market process and protecting the interests of investors and consumers. The underlying principle is that market developments should be accommodated as much as possible, while at the same time maintaining the effectiveness and efficiency of the objectives of financial supervision. The new Dutch model is where we are now, but how did we get here?

### Market Developments

Financial systems evolve as a result of continuous pressure for efficiency. Over the past several decades, there have been striking developments in intermediation processes and institutional design.3 Disintermediation and the disappearance of traditional sectoral boundaries between banking, securities, and insurance can be seen as particular forms of organizational evolution, just as is the unbundling of different kinds of financial activity within a group. From the perspective of regulation and supervision, it is important to create a supervisory system that accommodates market developments, and not to steer market developments in one particular direction or another. The task of the regulator and supervisor is not to predict market developments, but rather to create an infrastructure that is robust to different kinds of development, such as the bundling or

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2. Currently, DNB is responsible for prudential supervision of banks and securities firms, while the Pensioen-en Verzekeringkamer (PVK) is responsible for prudential supervision of insurance companies and pension funds. DNB and PVK have integrated through cross-board appointments and joint teams. They will merge in 2004.

3. For a detailed description, see Walter (2003).
unbundling of financial activities. Regulators need to monitor and analyze market developments, and their response should be driven by the quest for efficiency and effectiveness in terms of the objectives of financial supervision. Financial institutions may be big or small, be specialized or integrated, and serve wholesale markets, retail markets, or both. It is highly relevant to have an understanding of what financial institutions look like in practice, but not to favor one kind of organizational form over another. For the past few years, the trend has been toward the integration and bundling of activities, although there have been signs recently that a turning point has been reached, which again would require careful monitoring.

The main argument for the supervisory reform in the Netherlands has been that, no matter where markets are heading, the sectoral boundaries of the old model are not sustainable. So, how should one regulate such a highly dynamic industry, characterized by ongoing innovation and organizational evolution? The answer has been found in a functional approach to financial market developments and supervision. Markets may be dynamic, but the functions these markets provide to savers and investors are far more stable. The primary function of any financial market is to allocate economic resources, both across borders and across time, in an uncertain world. In the same vein, the objectives of financial supervision are more stable than the institutional characteristics of financial markets. Kees van Dijkhuizen, for example, compares the dynamics of financial market developments and the objectives of supervision since 1952, when the prudential supervision of banks was given its legal basis in the Netherlands. The institutional characteristics of financial markets have changed dramatically (see below). By contrast, the objective of prudential supervision, which is to maintain the solvency and liquidity of financial institutions in order to protect the interests of creditors, is the same today as it was fifty years ago.

The Netherlands is not alone in this. In his summary of international trends such as the blurring of boundaries between financial products and the increase in number and importance of financial conglomerates, Clive Briault notes:

4. For an elaboration of the functional approach to the financial sector, see Merton and Bodie (1995).
Banks, insurance companies and securities firms are now competing in the same market for the same customers, with similar and often even identical products, and via the same distribution channels. The functions of banking and insurance services also overlap and supplement one another in their core financial dimensions such as savings, financial procurement and risk protection. A similar convergence effect may be seen amongst product vendors and the distribution channels for all financial products, so that organizationally separate regulation can no longer cope.

The Dutch Financial Sector in Perspective

Table 1 measures the size of the Dutch financial sector alongside other indicators such as area, population, and GDP and puts these in global perspective. When measured by area or population, the Netherlands is a small country. In terms of GDP, it is a medium-size or large country. Indicators of the size of the financial sector, however, show that the Netherlands is among the largest financial centers in the world, in terms of both stock market capitalization and the presence of large financial institutions. Table 2, which measures the size of large financial institutions as a share of GDP in the Netherlands and in the United States, shows that Dutch financial institutions are large in comparison with the economy as a whole.

The Emergence of Large Complex Financial Groups

Since the liberalization of structural policies in the Netherlands in 1990, permitting the combination of universal banking and insurance within a financial group, large financial groups have become the dominant players in the financial markets. The diminishing importance of stand-alone institutions in the traditional financial sectors is illustrated by the fact that financial conglomerates now account for about 90 percent of banking, 70 percent of securities, and 60 percent of insurance (measured in terms of market shares).

The use of the phrase financial conglomerate for a class of financial groups may suggest that these groups look similar in practice. Figure 2 shows that in fact there are huge differences between financial conglomerates. It illustrates the different shapes and sizes of the five largest Dutch financial groups, with both balance sheet totals and the relative importance of their banking and investment versus insurance sectors. It shows that there are financial groups whose activities are predominantly in banking or insurance, as well as mixed financial groups, which include considerable banking (including securities) and insurance business. Compare, for example, the activities of Fortis, which include insurance (46 percent), consumer and commercial banking (33 percent), merchant

7. According to the directive for regulating financial conglomerates (Directive 2002/87/EC of the European Parliament and the Council of 16 December 2002), a group is defined as a financial conglomerate if more than 50 percent of group activities are financial and if the shares of the banking sector (including securities activities) and the insurance sector in total financial activities are within the range 10–90 percent. In addition, if the minority share has a balance sheet larger than 6 billion euros, the group qualifies as a financial conglomerate.
banking, and private asset management; with those of Rabobank, which include retail banking (48 percent), wholesale banking (32 percent), leasing, insurance, and asset management.8

Conflicts of Interest?

For the past few years, the trend in financial conglomerates has been toward the integration and bundling of activities, although there have recently been signs that this is changing—especially in the United States—due to conflicts of interest between commercial and investment banking. The classical case of conflict of interest is a universal bank having an incentive to take advantage of investors by issuing overpriced securities in companies to which it has loans outstanding at times when those firms’ prospects are not as positive as the public believes. The analysts at the investment bank may be involved by misleading investors on the true prospects of the firm. Another possibility may be that a bank underprices its loans to a company in return for being allowed to enter the profitable business of investment banking for that company (see Ingo

8. Figures are measured as income/operational results and originate from the annual reports (2001) of Rabobank and Fortis.
Walter’s paper in this volume for a detailed analysis of potential conflicts of interest and the impact on the optimal size of conglomerates).

What is relevant for this discussion is that both recent cases and the classical case of conflict of interest, as described in the literature, relate to the combination of commercial banking and investment banking, not to the combination of banking and insurance. Perhaps, theoretically, large complex groups could use their credit lines to urge companies to buy their insurance products as well, or underprice their insurance products in order to enter the investment banking market. However, we are not aware of empirical evidence showing this potential conflict of interest to be important in practice.

The Development of Financial Conglomerates:
Integration of Activities

Conglomerates have integrated activities at the commercial, organizational, and financial levels. Commercial integration refers to the provision of integrated products in the field of banking, insurance, and investment. The process of product development consists of several phases. During the first phase, conglomerates cross-sell their insurance products via their banking distribution channel, and vice versa. During the next phase, complex financial products are developed that contain elements of different classes of traditional sectoral products. Finally, conglomerates may present themselves as integrated financial service providers, instead of as a bank or an insurer.

Organizational integration refers to the centralization of activities that previously belonged with sectoral parts of the group. This may apply to functions such as risk management, asset management, and the group’s administrative organization. Centralization implies that strategic decisionmaking is transferred from the functional or sectoral entities of the group to the level of the group as a whole (that is, the holding level). During this process, the difference between the legal structure and the operational structure of the group will increase. In consequence, it becomes harder to attribute activities to the legal entities on which the division of supervisory responsibilities is based. A large difference between legal structure and organizational structure will complicate the execution of supervision, since supervision is based on statutory power to supervise legal entities and this may not correspond to where activities actually take place.
Financial integration means that the group presents itself as a single financial institution on the capital markets. Funding, by means of equity and debt, is centralized, the top holding of the group is listed on the stock exchange, and the group publishes consolidated accounts. Intragroup exposures will increase during the process of financial integration.

The approach of the Netherlands in regulating financial conglomerates is to identify changes in the risk profile as a result of combining different activities, and then to tailor regulatory and supervisory measures accordingly (for a summary, see the appendix; see also Iman van Lelyveld and Arnold Schilder’s paper in this volume on the development of integrated supervision in the Netherlands). A crucial characteristic of the Dutch approach is that it responds to the market developments of organizational integration at conglomerates. The regulatory framework will include both the holding level of conglomerates and all integrated activities that are essential to the functioning of the group as a whole. This is different from the U.S. approach, which seems to ignore the integration of activities; the Federal Reserve System concentrates on supervising the financial holding company, while the functional supervisors take a “solo” approach to different legal parts of the group.9

Organizational Structure of Supervision: Comparing Cross-Sectoral Models

In response to the disappearance of sectoral boundaries within the financial sector, two organizational structures for supervision have emerged: the functional model and the integrated model. In the functional model, there is a separate supervisor for each objective: systemic supervision, prudential supervision, and conduct-of-business supervision. In the integrated model, there is a single financial services regulator for prudential supervision and conduct-of-business supervision, while the central bank remains responsible for overall financial stability. It has

9. One of the reasons for establishing the Joint Forum for supervising financial conglomerates, with Tom de Swaan as the first chairman, has been the insight that it is no longer appropriate to supervise an insurance company on a solo basis if that insurer is part of a financial group. The Joint Forum was established in 1996 by three international supervisory organizations: the Basel Committee on Banking Supervision (Basel Committee), the International Organization of Securities Commissions (IOSCO), and the International Association of Insurance Supervisors (IAIS).
rightly been emphasized in many publications that there is no uniform best model, since the development of each organizational model should be seen in the context of the history of its national financial system.\textsuperscript{10} Furthermore, different cross-sectoral models are recent and have not been tested in a crisis situation. It is too early to test the performance of different models using the objectives of supervision as a yardstick.

\textit{A Framework for Comparing Cross-Sectoral Models}

The main purpose of this paper is to take the analysis of the organizational structure of supervision further by focusing on the key question: what are the pros and cons of combining different supervisory activities within a single organization? The trade-offs are made explicit by listing the synergies and conflicts of supervisory interest involved. This is similar to the approach that has been applied to financial institutions, that is, analysing synergies and conflicts of interest of combining financial activities within a financial institution.

Figure 3 summarizes the potential synergies and conflicts of supervisory interests. The first possible synergy results from combining systemic supervision (traditionally a central bank task, also referred to as macroprudential supervision) and prudential supervision of financial institutions. The link between stability issues at the microlevel (the level of the financial institution) and at the macrolevel (economywide) is especially relevant in a concentrated financial sector, with large, systemically relevant financial institutions. The synergies between both functions also refer to the possibility of acting decisively and swiftly in the event of a crisis. Crisis management usually requires key decisions to be taken within hours, rather than days. Combining both micro- and macroprudential supervision within a single institution ensures that relevant information is available at short notice and that a speedy decision to act can be taken if necessary (Charles Goodhart discusses how the collection, transmission, and interpretation of information would suffer if potentially systemic financial crises were to be handled by a committee).\textsuperscript{11}

The second synergy in figure 3 ("one-stop supervision")—between prudential supervision and conduct-of-business supervision—relates to the fact that the organization confronts all types of financial institutions

\textsuperscript{10} See, for example, Lumpkin (2002) and Briault (2002).
\textsuperscript{11} Goodhart (2000).
with one supervisor only. Furthermore, synergies in the execution of supervision are exploited by combining different supervisory activities within one institution. This might also generate efficiency gains by combining support services for different supervisory tasks.

Figure 3 also shows potential conflicts of interest in combining supervisory functions within a single organization. It starts by showing a possible conflict of interest between systemic supervision and prudential supervision, which relates to the possibility of lender of last resort (LOLR) operations by the central bank. The debate is about how to balance the benefits of LOLR operations (avoiding systemic risk, for example, financial panic or bank runs) against its costs (moral hazard). The answer adopted by many central banks is to prefer private sector solutions for financial institutions in trouble,\textsuperscript{12} and to strictly limit the possibility of LOLR operations to the characteristics of banks that caused the systemic risk in the first place. In general, banks are seen as “special,” since claims on banks are such important assets to a wide spectrum of economic agents, and because of the possibility of a contagion effect caused by banks in trouble.\textsuperscript{13} However, when financial groups integrate (see the previous section of this paper on market developments) and prudential supervision can no longer be based on sectoral boundaries, it may become more difficult to separate the aspects of financial institutions that justify the possibility of LOLR operations. The question of how to limit

\begin{figure}[h]
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\begin{tabular}{|c|c|c|}
\hline
\textbf{Supervisory synergies} & \textbf{Objectives} & \textbf{Conflicts of supervisory interest} \\
\hline
Link macro- and microfinancial stability; no crisis management by committee & Financial stability: Macroprudential & Pressure to extend scope of safety net versus to limit moral hazard \\
One-stop supervision & Financial stability: Microprudential & Focus on profitability and stability of institution versus interests of clients \\
Conduct-of-business & & \\
\hline
\end{tabular}
\caption{Supervisory synergies and conflicts of interest}
\end{figure}

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\textsuperscript{12} Economic and Financial Committee (2001).
\textsuperscript{13} Greenspan (2001).
the moral hazard aspects of the financial safety net remains relevant and needs to be answered by introducing institutional safeguards that limit safety net spillovers.\footnote{The U.S. solution in the Gramm-Leach-Bliley Act has been to (1) require that non-banking activities take place in legal entities separate from the bank; (2) limit the transactions that can occur between a bank and nonbank affiliates; and (3) create a system of functional regulation to limit direct contact between bank examiners and nonbanking affiliates. See Feldman, Lyard, and Willardson (2000).}

The potential conflict of interest between prudential supervision and conduct-of-business supervision (the second conflict in figure 3) relates to the different nature of their objectives. The prudential supervisor will be interested in the soundness of financial institutions, including their profitability, while the conduct-of-business supervisor will focus on the interests of clients. Mixing up the responsibilities of financial stability and conduct of business could create incentives for the supervisor to give preference to one objective over the other. As a result, the conduct-of-business supervisor is ideally situated to supervise possible conflicts of interest between a financial institution and its clients, since it will only focus on the interests of the clients (which is exactly what a conduct-of-business supervisor is for). Furthermore, the stability objective is consistent with preserving public confidence and may require discretion and confidentiality, which could be counterproductive to the transparency objective.\footnote{Padoa-Schioppa (2003).} Typically, conduct-of-business supervision is more publicly and politically visible than the financial stability objective, which relies more on confidentiality.\footnote{Jonk, Kremers, and Schoenmaker (2001).} A clear dividing line between both institutions recognizes the difference in the nature of their objectives.

\textit{Applying the Framework: the Dutch and U.K. Models}

Figure 3 allows comparison between the two organizational structures for cross-sectoral supervision that have emerged: the functional and the integrated models. As shown in figure 4, both the functional model of the Netherlands and the integrated model of the United Kingdom are twin peak models. In the Netherlands model, the organizational dividing line has been inserted between the objectives of financial stability (both micro and macro) and conduct of business. One institution is responsible for micro- and macroprudential supervision in the pursuit of financial...
stability. The other specializes in promoting a fair and transparent market process and protecting the interests of investors and consumers. The U.K. model combines microprudential and conduct-of-business supervision within an integrated financial supervisor—the Financial Services Authority (FSA)—while the central bank remains responsible for macroprudential supervision, that is, the stability of the financial system as a whole.

THE NETHERLANDS MODEL. In line with the synergies described in figure 3, the advantages of the Dutch model relate to combining all matters of financial stability within one institution. Given the size of Dutch financial institutions (see table 2), prudential problems can become systemic, warranting both micro- and macroperspectives on financial markets developments. The advantages also became clear in the aftermath of September 11, when De Nederlandsche Bank was able to immediately combine and take action on information flows from its directorates as

Figure 4. Comparing Twin Peaks Models: The Netherlands and the UK Model

<table>
<thead>
<tr>
<th></th>
<th>The Netherlands</th>
<th>The United Kingdom</th>
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<tr>
<td><strong>Financial stability</strong></td>
<td>Macroprudential</td>
<td>Macroprudential</td>
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<tr>
<td><strong>Microprudential</strong></td>
<td>DNB</td>
<td>BoE</td>
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<tr>
<td><strong>Conduct of business</strong></td>
<td>AFM</td>
<td>FSA</td>
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DNB = De Nederlandsche Bank; AFM = Authority for Financial Markets (successor to STE).

BoE = Bank of England; FSA = Financial Services Authority
regards payment systems, prudential supervision (financial institutions), and monetary policy. The model also avoids possible conflicts of interest between prudential supervision and conduct-of-business supervision (figure 3). The advantages of a separate conduct-of-business supervisor can be illustrated by recent investigations into conflicts of interest between investment banking and commercial banking within financial institutions. In the United States, the Securities and Exchange Commission has the right profile for investigating such topics, since they are about conflicts of interest between the financial institution and its clients, and it is the role of the SEC to focus on the interests of the clients. Similarly, the Authority for Financial Markets investigates these issues within the Netherlands. Finally, institutional safeguards are needed in the Dutch model to limit financial safety net spillovers.

THE U.K. MODEL. The main advantage of the U.K. model is that it has an integrated supervisor for all financial institutions (see figure 3, “one-stop supervision”). As Briault notes: “In the UK, the FSA . . . has benefited from the economies of scale arising from the move to a single set of central support services . . .; a unified management structure; and a unified approach to standard-setting, authorisation, supervision, enforcement, consumer education and tackling financial crime.”17

Figure 3 also highlights issues that may be of relevance in the U.K. model. First, it may be difficult to balance prudential and conduct-of-business concerns, especially given the potentially conflicting nature of these topics. For example, conduct-of-business concerns are more publicly and politically visible than prudential concerns and may override them, consuming the bulk of the time of the integrated supervisor’s senior management. Another potential drawback of the organizational dividing line between micro- and macroprudential supervision is that it requires “crisis management by committee,” which may make it more difficult to make and execute decisions rapidly.

Conclusion

The argument for reforming the Dutch supervisory system has been that the sectoral boundaries of the old model were not sustainable. The

objectives of supervision are more stable than are the institutional characteristics of financial markets, so they provide a better focal point for the organizational structure of supervision. Market developments should be accommodated as much as possible, while maintaining the effectiveness and efficiency of financial supervision. The new Dutch supervisory structure adheres to these objectives by dividing supervisory tasks between the complementary objectives of financial stability and conduct-of-business supervision. In the Dutch case, with several large, systemically relevant financial groups, the balance of arguments has produced an organizational structure in which all financial stability matters are combined within a single institution (that is, there is no crisis management by committee) and in which a separate supervisor—with a clear profile—is responsible for conduct-of-business supervision.
The Dutch Supervisory Approach to Financial Conglomerates

The approach of the Netherlands in regulating financial conglomerates is to identify changes in the risk profile as a result of combining different activities, and then to tailor regulatory and supervisory measures accordingly. First, the combination of activities such as banking and insurance might lower the total risk profile of a conglomerate, due to diversification effects. A detailed analysis of the possibilities of risk reduction resulting from opportunities for diversification is outside the scope of the paper. The general conclusion of the Dutch supervisors has been that the available empirical evidence does not justify a change of the present rules for determining the capital adequacy of conglomerates, which is simply to add the regulatory capital of the banking part and the insurance part. Second, combining activities may also increase risks, as summarized in box 1. As regards contagion, for example, a concern is whether problems in the insurance, securities, or unregulated parts of the conglomerate might spill over to the banking part of the conglomerate, and thereby raise issues of systemic stability. The most topical issues are those of conflicts of interest and reputational risks; in particular as a result of recent events as described in the text.

The legal framework for supervising financial conglomerates is under construction at both the national and the European levels. Given the dominant position of financial conglomerates within the Netherlands and the country’s long experience with conglomerates, the Dutch legislation on the supervision of financial conglomerates will take the supervisory approach further than the European Commission’s Financial Conglomerates Directive, which applies to the EU as a whole.

The Financial Conglomerates Directive introduces the concept of supervision on a groupwide basis, to be executed by a single coordinator. To summarize, the groupwide assessment will apply to the following items:

18. For empirical estimates, see Oliver, Wyman and Company (2001) and Bikker and van Lelyveld (2002).
Groupwide capital adequacy. The solvency requirements for each financial sector in a conglomerate shall be covered by equity in accordance with corresponding sectoral rules. The capital requirement for the group as a whole equals the sum of the requirements for the constituting parts. The capital shall be available at groupwide level. Multiple gearing, which is the multiple use of capital at the level of the conglomerate, is not allowed.

Risk management processes (including risk concentration, intragroup transactions, and internal controls). This includes supervision, at the level of the conglomerate, of risk management processes. As an example, the risk management process shall ensure a periodic review of the strate-

Box 1. Risks Posed by Financial Conglomerates

**Double or multiple gearing**: the risk that the equity of the group is being used as regulatory capital adequacy funds for two or more separately supervised legal entities of the group.

**Risk concentration**: several entities within the group might be exposed to the same risk factors. This might lead to risk concentrations at the level of the group for individual counterparties, counterparties in specific geographical locations, or industrial sectors.

**Regulatory arbitrage**: if the same risks within separately supervised legal entities within the group are exposed to different solvency requirements, it may be profitable for the conglomerate to move activities to the entity with the lowest requirements. This might impede the effectiveness of supervision. In the end, regulatory arbitrage is not necessarily counterproductive as it puts pressure on the supervisors to create a level playing field.

**Reputational risk/contagion**: the group as a whole might be affected if a separate label or entity within the group experiences reputational or financial problems.

**Conflicts of interest**: combining different activities within a group might increase the risk that the interests of the customers of the group will be harmed as a result of a conflict of interest between the group and its clients, the entities within the group or between the clients and different entities within the group.
gies and policies of the conglomerate with respect to all the risks they assume. Furthermore, risk monitoring systems should be well integrated in the organization and measures should be taken to measure, monitor, and control risks at the level of the conglomerate. Finally, conglomerates should report significant intragroup transactions and risk concentrations, and these will be subject to supervisory overview.

*Fit and proper character of holding management.* The persons who direct the business of a financial holding company should be of sufficiently good repute and have sufficient experience to perform their tasks.

The proposed changes to Dutch law will also broaden the scope of supervisory instruments to include all integrated and centralized activities that are essential for the functioning of the financial group as a whole. This is essential, given the difference between the legal and the operational structure of the conglomerate, as outlined in the text above. The approach is to supervise at the point where the business is done and not to hide behind legal entities.
References


