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the Netherlands: past, present and future

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Depositor and investor protection in the Netherlands: past, present and future

Gillian Garcia* and Henriëtte Prast**

Abstract

Globalisation and changes in financial systems across the world are causing marked changes in processes of financial regulation and supervision and are also calling into question the existing arrangements for protecting depositors and investors. This paper examines the factors prompting the changes. It first presents theoretical considerations governing supervision, regulation and protection. It continues by presenting some history of depositor protection in the European Union in the process overcoming a remarkable paucity of accessible information on the subject. It continues by presenting as much history of depositor and investor protection in the Netherlands as could be garnered from public and DNB sources. It describes instances where the present arrangements might be changed. It concludes by noting that debate in the Netherlands concerning reform is vigorous. It is hoped that this paper will contribute to that debate and will help to build a consensus on the nature of the reforms that are needed.

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I Introduction

The purpose of this study is to assess the systems of depositor and investor protection in the Netherlands and to examine relevant issues for the future of these schemes.

A number of developing countries are currently introducing systems of deposit insurance while others are making changes to the systems that they already have in place. There are two reasons behind these changes. First, the systems are trying to find an answer to the rapid changes in the financial environment, which include trends of globalisation and conglomeration of the financial system and the blurring of distinctions between financial products. The trend of globalisation requires a level playing field in order to promote financial efficiency and prevent regulatory arbitrage. In the European Union (EU) this is reflected in the harmonisation of financial regulation, including deposit insurance, along the lines of the harmonised directives on deposit-guarantee schemes (1994), investor compensation schemes (1994) and investor protection schemes (1997). The trend of conglomeration and the blurring of distinctions between financial institutions and products may result in a movement toward integration of deposit, securities and insurance protection. Second, the changes that are taking place and that are under consideration are to be seen as a response to developments in the theoretical approach to financial regulation, such as the increased awareness of the role of moral hazard and the importance of incentive mechanisms in regulation in general. This awareness is also reflected in for example the new Basle Capital Accord. The importance of the subject of deposit insurance in Europe is reflected not only by EU directives on the matter, but also by the establishment of a European Forum of Deposit Insurers.

In 2002, the design of financial supervision in the Netherlands changed fundamentally. As a result, the investor compensation scheme (ICS) was brought under the oversight of the central bank, which has had responsibility for the system of deposit insurance since it was established in 1978. This institutional change provides the opportunity to reconsider the design of the protection schemes in the light of the developments sketched above.

This study is organized as follows. To put the discussion in a broader context, the next chapter provides the theoretical background to depositor and investor protection. Chapter 3 provides some history of deposit insurance and investor protection

in the European Union (EU). It discusses how countries have responded to the EU-directives and to the changes in the financial environment and what developments are likely to occur in the near future. Chapter 4 assesses the systems of depositor and investor protection in place in the Netherlands in early 2003 against the backdrop of internationally accepted standards.¹ It concludes that, whereas in some areas the systems conform to good practices, there are some areas where improvement is possible. Based on this assessment, chapter 5 examines relevant issues to facilitate the discussion of the future of protection for depositors, investors, pensioners and insurance policyholders in the Netherlands. Chapter 6 summarizes the paper.

The main conclusions of this study are the following. The Netherlands was among the first European countries to introduce deposit insurance. Over time, all countries have adapted their systems in the spirit of the EU-directives on the matter, although it seems that some countries still need to undertake changes to comply with specific articles. In a number of aspects, the systems in the Netherlands conform to the good practices advocated in the literature. The schemes operate under a good legal, financial and political environment, have realistic objectives, are compulsory, defined in law and regulation, and offer limited coverage. However, there are also some divergences from good practice. There is no deposit insurance fund, premiums are not risk-adjusted, there is no financial backing from the government, and the arrangements for members to share costs are unclear. Further, the threat of closure is not effective for large banks, the systems' obligations to customers are not known because there is no measure of insured funds, the repayment process and final settlement are slow and all loans are offset. Finally, improvements could be made in governance structures, accountability, and public relations. This study recommends that the reorganized system(s) be (partly) funded *ex ante* to facilitate risk-adjusting premiums and reduce member institutions' uncertainty regarding funding arrangements. The fund could be financed minimally to cover just anticipated needs and administrative expenses for the current year or it could be made larger by including capital to cover unexpected losses. There could also be provisions for additional *ex post* assessments if needed and a formal government acceptance of responsibility for losses incurred in a systemic crisis that is beyond the financial capacity of member institutions. Charges for protection should be risk-based. If DNB reorganizes the Comprehensive Guarantee Scheme (CGS) and the ICS, it has three options, it could (1) fully combine the two schemes, (2) combine them administratively, while keeping their funding separate, or (3) reorganize them so that one scheme guarantees deposit products offered by both banks and investment firms while a second scheme would protect investment products offered both by banks and investment firms. DNB should make arrangements to obtain data on the total value of either eligible or insured deposits (and investments) on a regular basis. This is necessary because a guarantee system needs to know its obligations in order to set premiums and a target for the fund. Compensation should be paid more rapidly. The provisions for additional public information should be continued. A public relations campaign

could be designed to inform the population about the schemes. A final challenge ahead is the possibility of extending protection to the pension and insurance industries, depending on the outcome of EU deliberations on the matter.

2 Theoretical background

2.1. Introduction

In order to put the discussion about depositor and investor protection in the Netherlands in a broader perspective, this chapter discusses the economic rationale for financial regulation. It is structured as follows. The next section presents legitimate objectives for financial regulation in general and for depositor and investor protection in particular. It also discusses the pitfalls of financial guarantees and the role of the guarantor. Moreover, it touches upon regulation of the pensions and insurance industry as possible expansions of financial protection. Section 2.3 contrasts the objectives that the EU sets for its systems of protection with the goals of deposit insurance in the United States (US). Section 2.4 summarizes the factors that demand reform of the existing systems of financial protection around the world.

2.2 Legitimate objectives for financial regulation and protection

A stable financial system is a public good. Externalities give the public sector a role to play in providing a financial safety net to ensure stability (Freixas and Rochet, 1997). Within the financial system banks are essential to the smooth functioning of the economy because they usually operate the payment system, are the conduits for monetary policy, intermediate between savers and borrowers, and have precious confidential knowledge about their borrowers. Yet, banks are also vulnerable to individual runs and contagious collapse, because of the unique composition of their illiquid, opaque, longer-term assets, more liquid shorter-term liabilities, and their interrelationships. Consequently, banks have been the principal beneficiaries of the safety net consisting of a system of regulation and supervision, lending of last resort, and deposit insurance. In the EU, this is reflected, *inter alia*, in harmonized directives aimed at creating a level playing field and preventing regulatory arbitrage.

Investment firms have been regarded as less vulnerable to illiquidity and insolvency because their assets and liabilities are less mismatched than those of banks. Consequently, for many years they have not been seen as special or worthy of an extensive safety net. Nevertheless, the EU has argued that there are systemic risks that could arise from widespread failures of brokers and dealers that would prejudice the liquidity of the securities markets. Moreover, it sees regulation in the securities markets

as warranted because there are linkages between securities firms and other financial firms so that the failure of one could lead to the demise of others. The resulting loss of confidence in investor firms and financial markets could reduce financial intermediation and harm economic efficiency and growth.²

The case for regulating banks

Bank deposits can be withdrawn instantaneously without cost, making banks exposed to both rational and irrational runs.³ Therefore, even the condition of sound banks can be prejudiced by a liquidity crisis. This provides a rationale for instituting a safety net for banks.⁴ Besides the damage they may do to the financial system, bank runs may also affect monetary conditions. Runs can be of two kinds: runs to safe havens and runs to cash and/or foreign currency. Where a fearful depositor moves his funds from a weak bank to a safer bank, there will be merely a temporary disruption as balances are redistributed, possibly resulting in an eventual increase in the efficiency. However, if the run results from a fall in confidence in the banking sector as a whole, the depositor most likely will run to cash and the money supply will be diminished. If the monetary authority does not respond appropriately, a recession can ensue or be exacerbated. Where the depositor runs to foreign currency, the exchange rate may depreciate and monetary conditions may be disrupted. Governments have instituted systems of lending of last resort and deposit insurance to counteract bank runs.

The pitfalls of guarantees

A well-constituted lender of last resort and the deposit insurer together can contain many of the adverse macroeconomic consequences of an unsound banking system. However, a poorly designed safety net can reduce market discipline, where it eliminates incentives to monitor bank behavior. This is one of the reasons for offering lending of last resort only to illiquid but solvent banks and for limited insurance coverage, so that banks' sophisticated creditors can continue to exercise market discipline. The pitfalls to depositor and investor protection include adverse selection, moral hazard and principal-agent problems.

Adverse selection occurs if insurers are unable to distinguish good banks from bad banks. In that case they may set prices to cover a middling amount of risk. If the deposit insurance system is not compulsory, good banks will not enter the insurance scheme because premiums are too high, given their risk profile. If the system is compulsory, it may be that the profits the insurers obtain from the good banks are insufficient to cover the losses they incur from the risks taken by the bad banks. This is the case if losses are asymmetrically distributed.

Moral hazard may arise because, once the guarantee is made, depositors will monitor less, banks will increase the risks they undertake, supervisors may forbear, and politicians may interfere. However, this pitfall will be counteracted, at least partial-

ly, by the fact that guarantees make it easier for supervisors and politicians to close a bank. On the other hand, increased competition between banks with respect to shareholder value may exacerbate the problem of excessive risk-taking.

Principal-agent problems are common in financial contracts, including deposit insurance. In general a problem can arise where an agent pursues his/her own interests rather than those of the principal who he/she is supposed to be representing. Because of the multiplicity of parties involved in deposit insurance, a number of principal-agent problems arise. For example, as illustrated in Table 3 below, the deposit insurance agency is supposed to protect depositors, but may be unduly influenced by member institutions. Thus the public needs to be able to hold the deposit insurer accountable for its actions. The government should promote financial stability, but may be pressured by industry supporters to pursue their objectives. It too needs to be publicly accountable. The central bank may have different objectives from those of the deposit insurer in that the central bank may be more prepared to keep a weak bank in business in order to avoid a financial crisis, while the deposit insurer would prefer to close it quickly to limit its exposure to loss.

Bailouts

It is sometimes argued that the deposit insurance is useful because it makes it easier to close failed banks—there will be less of a public outcry. As Hellman, Murdock and Stiglitz (HMS, 2000) argue financial crises are endemic and bailouts are everywhere a potentially serious problem. HMS posit that here are two kinds of countries—those that have deposit insurance and those that do not know that they have it. Attempts to curb the moral hazard of deposit insurance will succeed only if the authorities’ pledge not to bail out banks, particularly large banks, is credible. That pledge will not be credible where some banks are seen to be ‘too-big-to-let-fail,’ which is a particular problem in highly concentrated financial systems. In these situations, a combination of insurance backed by a mix of regulatory instruments and supervisory interventions offers the best hope for constraining over-zealous risk-taking.

The international community has developed a number of good practices to quell the adverse consequences of protection.⁵ These are discussed further in Section 3 below.

The case for investor protection

The macroeconomic repercussions of a loss of investor confidence are less evident. Unlike banks, investment firms (such as stock brokers and investment funds) have not been regarded as ‘special,’ because they were less important to many economies, and because they were less subject to runs because their assets were transparent and their liabilities could not be quickly redeemed without cost. However, the recent blurring of distinctions between banks and non-bank financial institutions means that non-banks now have an increasing importance in supplying credit and offering instruments that are comprised in the money supply. Moreover, non-banks also,

especially those offering money market mutual funds, may be exposed to runs. Consequently, there are macroeconomic policy reasons for avoiding a loss of confidence at non-bank financial firms. In addition, guarantees for investors are offered as an element of consumer protection to level the playing field for both banks and non-banks.

The case for regulating pensions and insurance

The pension and insurance markets are already regulated to improve their soundness, reduce their probability of failure, and protect their customers from loss. Nevertheless failures can occur. Those seeking a level playing field for financial firms and protection for their customers can make a case for guaranteeing pensioners and insurance policy holders. Insurance and pension companies appear to be less vulnerable than banks in that the duration of their assets and liabilities is less mismatched than banks. Insurance companies' (particularly life insurance companies') liabilities are long term, so they are less vulnerable to irrational runs leading to liquidity problems. Market discipline is costly. An insurance policy holder with justified concern about his insurance company's condition incurs a high cost when he surrenders his policy at a price that typically lies well below both face value and the accumulated value of premiums paid. This fact implies that a run on an insurance fund will increase the firm's liquidity, in contrast to the situation for banks and mutual funds. Still, claims on mutual funds with a life insurance component could be withdrawn quickly, and forced liquidation to meet redemption demands might depress the values received by investors. Also, if the insurance company's cash inflows drop off as a result of a decline in new business and renewal rates, it might be forced to liquidate assets prematurely. This might also depress asset prices and exacerbate the company's liquidity problems. Finally, one might argue that because of the close links between banks and insurance companies and their products, problems at insurance companies may harm the reputation of banks and so lead to bank runs. Moreover, from a consumer protection point of view, it can be argued that guaranteeing life insurance policies is no less important than guaranteeing securities investments, as life insurance is merely a specific form of investing and life insurance policy holders are no more sophisticated than investors.

If market discipline by life insurance policyholders is inhibited by its high cost, it is virtually impossible for future pensioners in the Netherlands. In compulsory pension schemes, like most of the schemes in the Netherlands, employees cannot run from their pension commitments without relinquishing the associated job. As a result, market discipline by (future) pensioners, that is those who are paying current premiums, is, in fact, non-existent. Workers can exert market discipline only at an unreasonably high cost, namely through labour mobility. Consequently, guaranteeing life insurance policies and pensions might be considered not from a fear of runs within the industry but for reasons of consumer protection and concern for a contagious loss of reputation within and among financial conglomerates.

Guarding the guarantor

Any organization providing a guarantee takes on a financial obligation that can be onerous and potentially destructive if not managed properly. Conceptually, there are three ways for the guarantor to limit its exposure to loss: by (1) taking collateral, closely monitoring its value, and seizing it if the guaranteed party defaults on its commitments; (2) restricting the assets and the activities of the guaranteed party; and (3) assessing insurance charges that are adjusted for risk and adequately compensate the guarantor.⁶

For the guarantor of financial institutions to exercise the first control option, it must be able to withdraw the guaranteed institution's license when (or preferably just before) it becomes book-value insolvent and dispose of its assets in a cost-effective manner. This threat is not credible in a banking system that is highly concentrated and/or has state-owned institutions. In some EU-countries, such as Sweden, Finland, Greece, the Netherlands, Denmark, and Belgium, the banking and insurance systems are heavily concentrated. Other countries with somewhat less concentrated systems, notably France, Germany and Italy, have a history of state-owned banks. On the one hand, because the failure of a large bank in a highly concentrated system would automatically create systemic instability and rescue could be expensive, there is an incentive for the supervisor to prevent failure by increased supervisory and monitoring activities. On the other hand, a high degree of concentration may lead owners, managers and customers to believe that their institution is 'too big to fail' – a belief that can lead to excessive risk-taking, insufficient market discipline, and reduced soundness. The same problems can occur at state-owned banks. In fact, a too-big-to-fail policy can be regarded as an implicit guarantee for all stakeholders, including shareholders. Moreover, monitoring under option 1 is sufficient to protect the guarantor only where the guaranteed party's assets are liquid so that the guarantor can dispose of them readily with little loss. This is not the case for most bank assets; consequently, the guarantor needs the bank to maintain a not-insignificant capital cushion to protect them both from insolvency. The second option for guarding the guarantor's solvency – restricting assets and activities – is also largely unavailable in a universal banking system dominated by conglomerates, as is frequently the case in Europe. For these reasons, guarantee systems in Europe have come to rely heavily on capital requirements and increasingly on risk-based premiums under option 3.

2.3 Legitimate Objectives for Depositor and Investor Protection: EU vs. US

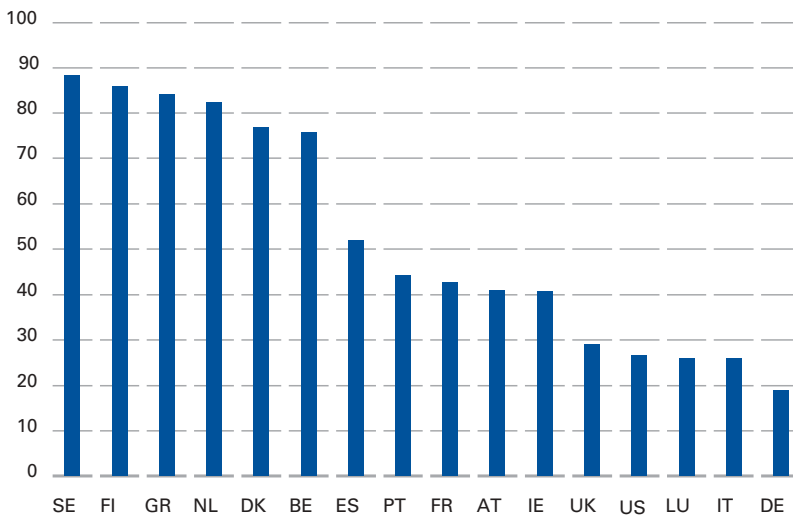
The Financial Stability Forum's Working Group on Deposit Insurance (WGDI) began its work in late 1998 by examining the goals that Working Group members set for their systems of deposit protection. The Group compiled a list of 26 different objectives.⁷ Clearly, one single supervisory tool can only achieve a very limited number of objectives. The group found that Group members mentioned financial stability

and small depositor protection most frequently as their objectives. The Group regarded these two objectives as compatible and therefore, legitimate, and achievable in a well-designed guarantee system.⁸

The relative emphasis that a country places on financial stability, as compared to consumer protection, will influence the design of its system of protection. In the context of the European Union, deposit and investor protection are more a matter of consumer protection than financial stability as is reflected in the EU Directives' focus on the creation of harmonized financial markets. The emphasis may also be a reflection of the history and characteristics of the European financial system, where concentration, state-ownership and political philosophy have all led to a reluctance to let its banks (especially its large banks) fail and indeed where financial firms in the past have not often failed, especially in comparison to the US. (Figure 1 illustrates the typically heavier concentration in the banking industry in European countries as compared to that in the US.) In countries where financial firms fail infrequently, there will be less of a need to design customer protection systems to be a tool of financial safety and soundness. Consequently, in Europe, instead of designing protection systems to avoid moral hazard, adverse selection and agency problems, these pitfalls are countered and financial stability is ensured more by capital-adequacy and other regulatory requirements, and their strict enforcement by strong financial supervisors, and, in Germany at least, by monitoring by peer institutions.

In the United States, on the other hand, deposit insurance is seen as having an

Chart 1 Bank concentration in the EU and THE US



Source: ECB, GIO

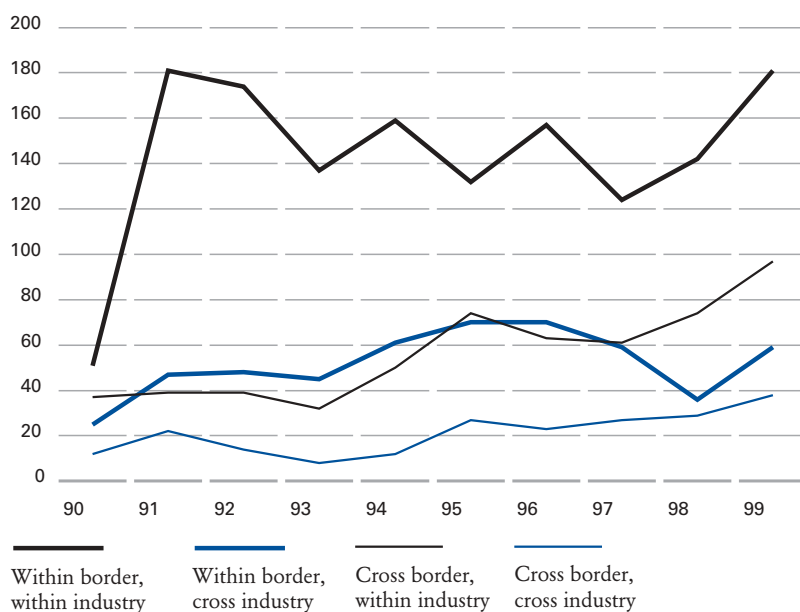
important role to play in promoting financial stability. There is skepticism in the academic and regulatory communities in the United States about the effectiveness of regulation and supervision in ensuring soundness in a financial system still characterized by roughly 8,000 commercial banks, 1,500 savings associations, and 10,000 credit unions (see for example Dale 2000a). The consensus view is that protection systems need to be designed to allow market discipline to counter deposit insurance's well-known bugbears.

2.4 The Confluence of Factors Demanding Reform⁹

Advances in finance theory have led to the creation of a myriad of new financially engineered products. Technological change in the collection, processing and transmission of information has made it feasible to offer these new financial instruments to customers. This process, in combination with the deregulation of the financial sector, has caused a blurring of distinctions among financial products and the financial services firms that offer them. Further, the liberalization of capital markets has opened up trading areas across national borders as improvements in information

Chart 2 Consolidation in Nine European Countries

Number of deals classified by the acquiring firm



Source: Constructed by the authors from G 10 data for Belgium, France, Germany, Italy, Netherlands, Spain, Sweden, Switzerland, and the U.K.

technology have drastically lowered the cost of communication. As a result, international activities by financial institutions have become not only legally permitted, but also economically profitable.¹⁰ Figure 2 illustrates the trend of consolidation in Europe. It shows the yearly number of mergers and take-overs in the financial industry in nine European countries in the period 1900-1999.

In short, cross-border activities and the establishment of increasingly concentrated financial conglomerates have resulted in a financial landscape that is much changed in 2003 as compared to that 20 or even 10 years ago. At the same time, as a result of both banking crises and developments in economic theory, a greater appreciation has arisen of the dangers of offering ill-designed systems of protection. As a result, supervisory systems around the world are being revised extensively in order to subdue risks in the changed financial landscape.

In turn, the new supervisory systems are reconsidering the organization and structure of systems of protection for depositors, investors, pensioners, and insurance policyholders. At the same time, a number of developments have emphasized the importance of the protection for the consumers of financial products during the 1990s, both in the EU and in the Netherlands. Partly as a result of the stock market boom, the proportion of less sophisticated investors increased during the 1990s. Moreover, increasingly complicated financial products have become available. Hence the protection of consumers of financial products has gained importance. Also, the failures of BCCI and Barings, scandals involving large firms (Parmalat) in Europe and in the United States (Enron, WorldCom and others) and even the suspicions of insider trading at the Amsterdam Stock Exchange have made society increasingly aware of the potential adverse effects of a lack of integrity in financial markets.¹¹ EU Directives on deposit guarantees and investor protection, aiming at harmonization, a level playing field, and the prevention of regulatory arbitrage, have established constraints on member countries' freedom in making revisions to their systems of protection.

3 History of deposit insurance and investor protection in the European union

3.1 Introduction

This chapter provides some history of deposit insurance and investor protection in the European Union—a subject that has not attracted much attention to date and on which it is difficult to obtain information. The chapter discusses the EU-directives and describes how countries have responded to these directives and to the changes in the financial environment. It is structured as follows. The next section describes chronologically the introduction and harmonisation of depositor protection in the EU. Section 3.3 discusses the expansions of financial protection beyond the home country and to other types of financial instruments in addition to deposits. For those readers that are interested in developments in individual countries, sections 3.4 through 3.8 describe the systems of depositor and investor protection in selected EU-countries - Belgium, Germany, Italy, Sweden and the UK in more detail. Section 3.9 summarises the chapter.

3.2 First steps toward introduction and harmonisation of depositor protection

In general, Western European systems of protection for banks started typically in the late 1970s or early 1980s, although Belgium, Germany and Norway had initiated systems earlier. The systems that originated in this period tended to be bare-bones, offering protection only to depositors, only in a country's major financial institutions—and only to depositors that were resident in the country offering the guarantee.¹² The systems bestowed some degree of consumer protection while attempting to strengthen systemic stability. In almost all other respects, the systems initiated at this time were diverse in composition.

Subsequently, EU countries have revised their systems of protection in response to the EU directives on deposit insurance and investor protection. An overview of these directives is given in Table 1.

The revisions introduced a degree of harmonisation among the systems and expanded them. Although countries in Europe initially enacted very different systems and responded to the EU directives of 1994 and 1997 in somewhat different ways, there are

Table 1 Timetable EU-harmonisation of deposit and investor protection

Proposal/directive	Aim
1986 Recommendation on deposit insurance	Encouragement of introduction of deposit insurance
1994 Council Directive on Deposit-guarantee Schemes	Consumer protection and systemic stability; EU-wide coverage for credit institutions
1994 Proposal on Investor Compensation schemes	Extend protection to securities
1997 Directive on Investor Protection Schemes	A harmonised minimum level of protection for the small investor

a number of commonalities with regard to depositor and investor protection in Europe—the time of initiation, its mandatory nature, the minimum coverage level applied to the sum of a depositor’s accounts at a failed bank, the similar exclusions, and home country responsibility.

The commonalities were not a coincidence, but reflected the influence of discussions and Directives at the EU level. A first commonality is that a number of systems commenced at roughly the same time. In the 1970s the European Commission submitted the question of deposit insurance to a group of experts. Their discussions were encouraged by the unfortunate experience of bank failures in some of European economies. Depositors lost money and complained bitterly, for example, during the 1970s secondary banking crisis in the United Kingdom. Creditors in western time zones lost money when Bankhaus Herstatt failed in Germany in 1974. Spain experienced a serious banking crisis from 1977 to 1985. A bank was rescued in Italy in 1974 and its mode of resolution proved to be highly controversial. Banco Ambrosiano, an Italian bank chartered in Luxembourg, failed in 1982, illustrating the dangers of banks falling through the gaps in international regulation and foretelling the 1991 demise of the Bank of Credit and Commerce International (BCCI).

Following its early discussions, the Commission publicly addressed the matter of deposit insurance in a 1985 proposal on the reorganisation and winding up of credit institutions. The proposals on deposit insurance therein were very limited and were not welcomed. Nevertheless, the experience of bank failures and the fact that deposit insurance discussions were underway encouraged the adoption of new systems of protection, usually for bank depositors in the home state. In the period

between 1977 and 1983, Austria, France, the Netherlands, Spain, Switzerland and the United Kingdom initiated systems of deposit protection. In the same period, Belgium and Germany revised the systems that they had begun earlier.

The process of initiation of deposit insurance systems was further encouraged when, in 1986, the European Commission issued a formal Recommendation on deposit insurance that aimed to encourage the adoption of deposit guarantee schemes in all member states.¹³ No maximum or minimum level of coverage was posited, and coverage was to be territorial with responsibility falling to the host country's monetary authorities, as an extension of their responsibility for monetary policy and lending of last resort.

At this juncture, seven member states (Austria, Belgium, France, Germany, the Netherlands, Spain and the United Kingdom) already had systems in place. Denmark, Ireland, Italy, and Luxembourg adopted the Recommendation, however, and initiated systems of deposit protection between 1987 and 1989. The recommendation was not universally accepted; Greece and Portugal still lacked systems when the time period for implementing the recommendation had expired. These two countries put them in place only in 1993 and 1992, respectively.¹⁴

In June 1992, the European Community (EC) followed its earlier Recommendation with a proposal for a Council Directive on deposit-guarantee schemes. The proposal was amended in December 1992 and again in March 1993 before being enacted in May 1994. The stated objectives were to provide some degree of consumer protection while also strengthening systemic stability.¹⁵ Nevertheless, it is clear that an important motivating factor was a desire to harmonise, that is, to level the playing field for, the development of credit institutions within a single European banking market.

3.3 Expansions of protection in the EU

Any bare-bones system of deposit insurance will cover resident depositors in the most important of a country's financial intermediaries—usually its commercial or universal banks. Such a system can expand its scope in three directions: by (1) covering depositors in other types of depository or nondepository financial institutions, (2) extending coverage beyond the home country, and (3) including other types of financial instruments in addition to deposits.

In the United States, the first and third types of expansion have occurred. Federal deposit insurance commenced at commercial banks in 1934, but a separate system was soon added for savings and loan associations and a third scheme was created for credit unions in 1970.¹⁶ Although these three systems insure only deposits, a separate

system of protection for investors at securities firms was created in 1970. Subsequently, in addition, each State in the U.S. now maintains a guarantee fund to protect policyholders at insurance companies. To date, these five systems of protection (for banks, savings associations, credit unions, securities firms, and insurance companies) have all remained separate.¹⁷ Moreover, there is no movement to combine protection for depositors, investors or insurance-policy holders or to extend coverage to deposits taken outside the United States.

The situation has developed differently in Europe, however. In order to view the situation in the Netherlands against the background of protection in the EU, this section examines how similar expansions of guaranteed coverage have occurred in European countries through the promulgation of two EU Directives: the 1994 Directive on deposit-guarantee schemes and the 1997 Directive on investor protection schemes. There is, as yet, no general directive to protect policyholders at insurance companies in the EU.

The 1994 EU Directive on Deposit-Guarantee Schemes

The systems put into operation in the early years of protection in Europe varied considerably from country to country.¹⁸ This led to the 1994 EU directive on deposit guarantee schemes, which aimed to harmonise, at a minimal level, the systems in place. The directive was also prompted partly by a second experience of bank failures in the region – this time in the early 1990s. For example, during the late 1980s and early 1990s, Denmark, Finland, and Sweden experienced major banking crises that led the latter two countries to place full guarantees on bank liabilities – guarantees that subsequently were replaced by limited systems of depositor protection.

But it was the closure of the Bank of Credit and Commerce International (BCCI) in July 1991 that was instrumental in the design of the 1994 Directive. BCCI was registered in Luxembourg, had its operational head quarters in London and operated subsidiaries/affiliates in 69 countries. The legal division of responsibility allowed the authorities in Luxembourg and the United Kingdom to ‘pass the buck,’ so that neither supervised BCCI’s operations adequately. In July 1991, however, the authorities in London closed BCCI’s U.K. operations and this led to the withdrawal of funds from small and medium sized U.K. banks. ‘Within three years, a quarter of the banks in this sector had, in some sense, failed.’¹⁹ The closure of BCCI’s headquarters in Luxembourg led to the failure of its branches abroad. For example, BCCI failed in the Netherlands and was, in fact, the last bank to fail in that country.

Following the experience with BCCI, the 1994 EU Directive translated the concept of ‘home country control’ into the field of deposit insurance. It aimed to provide protection to depositors of branches situated in a State other than that of the head office and to establish the responsibility of the home country scheme, not only to supervise the bank (as directed elsewhere), but also to compensate its depositors at a failed

bank's branches in the host member country. To this end, the 1994 Directive expanded coverage to depositors at branches of member countries' banks operating within the EU. The Directive thus provided a missing link in the establishment of the single European banking market by insuring its depositors everywhere in the EU.

Part of the single market objective was the establishment of a harmonised minimum level of protection. The first harmonisation provision was that it was the obligation of every credit institution to become a member of a deposit guarantee scheme (unless it belonged to an alternative scheme that guaranteed its solvency). Mandatory membership was considered necessary to prevent runs by depositors that could lead to financial instability. Nevertheless, the directive lists certain classes of depositors that may be omitted from the scheme. The rationale for the exclusion of such depositors is that they do not need, or deserve, social protection. A large number of member countries have chosen to adopt the Directive's list of optional exclusions.

Expansion beyond the bare-bones level of instruments covered by the guarantee was required by both the 1994 Directive on deposit-guarantee schemes and the 1997 Directive on investor-protection schemes. For example, Article 1 of the 1994 EU directive on deposit-guarantee schemes, defines a deposit as 'any credit balance which results from funds left in an account or from temporary situations deriving from normal banking transaction and which the credit institution must repay under legal and contractual conditions applicable, and any debt evidenced by a certificate issued by a credit institution.' The definition also extends to shares held in U.K. and Irish building Societies. This is a relatively wide definition of a deposit.

In a third harmonisation provision, the 1994 Directive also required the extension of coverage beyond banks to other forms of depository or credit institutions. Article 1 defines a credit institution as 'an undertaking the business of which is to receive deposits or other repayable funds from the public and to grant credits for its own account.' This definition would encompass savings banks, mortgage banks, credit unions, and other credit institutions dealing with the public. These definitions would require countries to broaden their deposit insurance scheme, or schemes, to cover all instruments fitting the definition of a deposit in any and all types of institutions fitting the definition of a credit institution.

It was mentioned above that many systems of protection in Western Europe began at about the same time. A fourth commonality is that systems of protection are mandatory within the EU. The Directive required countries to maintain or introduce a system and to officially recognise it. Moreover, the Directive set home-country responsibility for providing a minimum level of coverage, placed a temporary ban on exporting high coverage, allowed branches of foreign banks to top up their cover by joining the host country scheme, established three mandatory exclusions on own funds, interbank and money-laundered deposits, provided a list of optional

exclusions, restricted advertising while requiring information to be provided to depositors.

The 1994 Directive left plenty of room for countries to tailor their system(s) of protection to local circumstances. Little attention was paid to combating moral hazard through coinsurance,²⁰ limiting coverage, risk-adjusting insurance premiums, or avoiding bank rescues and bailouts.²¹ During the negotiations leading to the Directive, German views prevailed and the proposal for a mandatory ceiling on protection and for a requirement for coinsurance was rejected, on the grounds that the dangers of moral hazard argument had been overstated. Consequently, the Directive permits countries to decide whether to choose or avoid coinsurance and it sets no upper limit on the coverage that countries can offer. Moreover, it exempts credit institutions from the obligation to join a system of deposit insurance, where their solvency was protected by an alternative system, as in the case of Germany's savings and co-operative banks.²²

By imposing an unambitious, three-month, deadline for compensation, the Directive allows variability in the timing of payouts. It puts no pressure on member countries to provide u.s.-style three-day compensation.

The Directive also imposes some ambiguous restrictions on advertising that permit countries to adopt different standards with respect to competition through advertising and to leave the possibility that depositors are insufficiently informed about their rights. For example, in its preamble the Directive states, 'Whereas, information is an essential element in depositor protection and must therefore be the subject of a minimum number of binding provisions, whereas, however, the unregulated use in advertising of references to the amount and scope of a deposit-guarantee scheme could affect the stability of the banking system or depositor confidence; whereas Member States should therefore lay down rules to limit such references.'

The Directive also gives members latitude in regard to financing the schemes they establish, while discouraging the use of government funds for this purpose. In the words of the Preamble, 'Whereas it is not indispensable, in this Directive, to harmonise the methods of financing schemes guaranteeing deposits or credit institutions themselves, given, on the one hand, that the cost of financing such schemes must be borne, in principle, by credit institutions themselves and that, on the other hand, that the financing must be in proportion to their liabilities; whereas this must not, however, jeopardise the stability of the banking system of the member State concerned.'

Finally, the Directive sets a somewhat contradictory obligation for a Member government to establish and officially recognise a system of deposit protection, but exempts it from any obligation to support it financially—even in a crisis. In fact,

States are not liable if the systems they set up fail. 'Whereas this Directive may not result in the member States' or their competent authorities' being made liable in respect of depositors if they have ensured that one or more schemes guaranteeing deposits or credit institutions themselves and ensuring the compensation or protection of depositors under the conditions prescribed in this Directive have been introduced and officially recognised.'

Following the 1994 Directive, which was adopted also by non-EU members of the European Economic Area, Austria, Belgium, Denmark, Finland, France, Greece, Iceland, Ireland, Italy, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom all amended their systems of deposit protection in 1995 or 1996. Germany and Luxembourg were rather later in making changes (in 1998 and 1999, respectively). The amendments in Denmark, Finland and Sweden most probably reflected primarily these countries' experiences with extensive guarantees granted during their financial crises in the early and mid-1990s. In the absence of definitive data, the authors can only conjecture, however, that most countries needed to make changes to conform to the 1994 EU directive on deposit-protection schemes.

Some countries, for example, the Netherlands and the United Kingdom, did not make substantial changes to their systems of protection at this time.²³ Belgium undertook a moderate list of revisions to its old-established systems of protection. Other countries, Germany and Italy, for example, found it necessary to make more significant changes to conform to the EU Directive. These two countries, like Denmark and France, might need to consider making adjustments if only because they offered higher than minimum EU coverage and overprotection may create moral hazard and because the directive temporarily prohibited exporting high coverage. Sweden had experienced a serious banking crisis in the early 1990s and introduced unlimited coverage to prevent a melt-down in the banking system. In response to the 1994 EU Directive Sweden created a new system of limited protection. Unfortunately, data about changes undertaken by the EU-countries are far from complete. Based on the available data, sections 3.4 through 3.8 describe the changes undertaken by selected countries.

The 1997 Directive on Investor Protection Schemes

A blurring of distinctions between financial firms and financial products as the 1990s progressed caused the EU to decide that it had become difficult to separately identify deposits from other forms of consumer savings and credit institutions from other financial firms. Moreover, the EU considered that these other financial instruments, held at other types of financial institutions, warranted protection.

Consequently, investor protection was one of the objectives of the 1993 Directives on Investment Services and Capital Adequacy that required that an investment firm must be authorised to be fit and proper and sufficiently capitalised in its home State

before venturing abroad.²⁴ However, regulation and supervision were acknowledged to be insufficient to protect investors in all circumstances. Thus, the European Parliament and Council issued a proposal on Investor Compensation schemes and reissued it in amended form in 1994. Ultimately, the EU Parliament enacted a second protection Directive that of March 1997 on investor-compensation schemes. This Directive provided ‘a harmonised minimum level of protection at least for the small investor in the event of an investment firm being unable to meet its obligations to its investor clients.’²⁵

Article 1 of the 1997 Directive defines an investor as ‘any person who has entrusted money or instruments to an investment firm in connection with investment business.’ In turn, an investment firm is defined as in EU Directive 93/22/EEC as ‘any legal person the regular occupation or business of which is the provision of investment services for third parties on a professional basis.’²⁶

Apart from extending coverage to additional types of financial instruments held at an enlarged group of financial institutions, the 1997 Directive attempted to enact provisions that paralleled those of the 1994 Directive. Thus, it required mandatory participation, established home country responsibility, temporarily prohibited competition through exporting higher coverage for fear of moral hazard, allowed branches of foreign banks to top up their coverage, provided for a minimum level of coverage (ECU20,000) with three mandatory and a number of optional exclusions, permitted coinsurance, allowed diversity in funding arrangements, restricted advertising, but required the provision of information to investors, and relied on the principle of *caveat emptor*.

Given the prevalence of universal banking in Europe, the broadened definitions that governed membership in a protection scheme and also the instruments it encompassed would require countries to offer coverage in both banks and securities firms. Countries needed to decide how best to do that. All member countries revised their systems subsequently, typically setting up a separate scheme for securities firms. In the cases of the Netherlands and the United Kingdom, the resulting changes were more extensive than those required for these two countries in order to conform to the 1994 EU Directive (see below). The UK decided to integrate its separate systems in 2001.

*Protection for Insurance Policyholders*²⁷

There is, as yet, no general directive requiring protection for policyholders in the insurance industry. However, the blurring of distinctions between financial products can be expected to inspire policy makers to think about this issue. Moreover, the decline in equity values world-wide is likely to reduce the value of insurance companies’ (particularly life insurance companies’) asset portfolios and may cause solvency problems at weaker institutions. Such a development might well trigger the discussion and prompt a third EU Directive to protect insurance policy holders.

Even without an EU directive, systems to protect policyholders have been established in at least 21 OECD countries. As a rule they are funded. Some systems protect policyholders (typically in full) in one or a few branches of the insurance industry. These are established typically where insurance is compulsory—as in the case of motor vehicle liability insurance.²⁸ For members of the EU it is mandated by Article 1 of the second European directive on compulsory motor vehicle insurance. Some countries (France, Italy and Spain) also maintain funds for compulsory insurance covering hunting accidents, while France, Italy, Japan and Poland have funds to cover classes of agricultural or industrial accidents. These funds usually provide full coverage. Other systems partially cover most contracts written by participating insurance companies. At the moment only 4 EU countries (France, Ireland, Spain and the U.K.) have established systems to cover life insurance policyholders. In Ireland and the U.K., such coverage is limited to natural persons. France has applied a cap to the coverage offered. The U.K. limits recovery to a percentage of the claim. Ireland imposes both a cap and coinsurance.²⁹

3.4 Case study: Belgium

Belgium needed to make a number of moderate adjustments to the systems of depositor protection that it had had in operation for almost 60 years.

*The Systems Before the 1994 Directive*³⁰

Belgium began a rudimentary system of protection, operated by the Institute de Reécompte et de Garantie (the IRG) in 1935. The system was formalised with the creation of a deposit insurance fund in 1974 and by more detailed arrangements in 1985. At the beginning of 1985, two funds were established, one for banks and one for private savings institutions. Publicly owned institutions were not included. Both schemes were run by the IRG and were financed mainly by member institutions, although contributions to the fund were retained by banks to be called upon as needed by the fund. Participation was voluntary, but in practice all eligible institutions belonged. Only deposits in Belgium francs (later in any EU currency) were covered. Maximum coverage was Bfr500,000 (then equal to ECU11,200) per account; however, depositors had no legal right to reimbursement, which remained at the discretion of the IRG and would only be considered in the event of a bank's bankruptcy. If insufficient funds were available to compensate a depositor as promised, compensation would be reduced proportionately to fit available resources. Additional compensation could then become available at a later date after the IRG had called on additional contributions from members. Belgium used its systems only once, when a savings bank failed.

The Systems in Belgium After the 1994 Directive

The new system in Belgium required mandatory participation for all Belgium banks,

savings institutions and public credit institutions. The two separate funds were combined into one. Members were required to send their contributions to the fund, instead of retaining them in house. Contributions were set at 2% of the deposits taken from clients. An additional 0.4% could be called in when the fund had insufficient resources. However, a credit institution could cease paying premiums when the sum of its contributions had reached a level of 0.5% of its guaranteed deposits.

The Belgium government gave a temporary guarantee of BF 3 billion to cover the cost of any intervention that the fund might need to make at a publicly owned credit institution. Depositors were given a right to reimbursement when their credit institution became bankrupt or was otherwise unable to repay the funds it owed. The guarantee was applied to the sum of a depositor's accounts at a failed bank and the coverage limit no longer applied to each account separately. Belgium adopted EU the mandatory exclusions (on interbank funds, own funds and money-laundered accounts) and the list of optional exclusions, including those applicable to depositors who had obtained non-market concessions from the bank.

Belgium again revised its system of protection in a statute of December 1998.³¹ The statute created a Fonds de Protection des Depots et des Instruments Financiers (FONDS) to replace the Institut de Reescompte et de Garantie (IRG) The law gave the FONDS the option of operating separate protection systems for credit institutions and for investment firms. In February 1999, the FONDS chose to unify the separate systems of protection into a *systeme de protection des depots et des instruments financiers*. This system covers credit institutions, stockbrokers, and asset management firms.

3.5 Case study: Germany

By the 1990s, Germany already had several systems of protection in operation and they could not be easily reconciled with the 1994 EU Directive.

*Deposit Insurance in Germany Before the 1994 Directive*³²

In 1999 the German banking system included three types of banks. Private commercial/universal banks held 25% of system assets. This sector of the market was relatively highly concentrated—the four largest banks held 57% of private banking assets in 1999. The German banking system as a whole, however, exhibited low concentration in 1999 because there were large numbers of savings, co-operative, and other banks that held 36%, 13%, and 26%, respectively, of system assets. Publicly owned banks were important: they held over 36% of system assets in 1999.

Each of the three groups of banks maintained its own voluntary system of deposit insurance. The system for private banks was initially organised by the German Bankers' Association, following the 1974 failure of Bankhaus Herstatt. The aim was

to offset the public banks' competitive advantage arising from their public ownership and explicit guarantee under a scheme run by the Association of Public Banks. The savings and co-operative banks both also established schemes that protected their institutions from failure, in addition to guaranteeing deposits in the event of failure. All of the three systems were voluntary and are financed by premiums levied, ex ante or ex post, on their members.

The German System for Private Banks

The private system was funded both ex ante and ex post. The premium of 0.03% of liabilities could be increased up to 250% for riskier banks. There was no public funding, although experts had commented that it might be forthcoming in an emergency. Although formally voluntary, non-participants had to disclose this fact, which imposed a strong incentive to join. Yet members could be expelled by their peers. Coverage in the scheme for private banks was set at 30% of capital.³³ Both domestic and foreign depositors were covered in domestic and foreign currency and in both domestic and foreign branches of member banks. Thus there was little or no monitoring by depositors, whose discipline was replaced by that exercised by the other members of each particular fund.

The scheme offered no statutory right to compensation; nevertheless, no depositor has ever been refused reimbursement and no member bank has been denied financial assistance. The scheme was run privately under the bylaws of a private association, and in fact operated like a club.³⁴ It had no public supervision, was run by 10 commissioners, and could expel members for supplying wrongful information or for being consistently ranked in the weakest risk category. Members operated conservatively because of peer monitoring, the risk of expulsion, strong offsite supervision by the Federal Supervisory Office (FSO) and the Bundesbank, and a legal system that severely punished bankruptcy.

The German Response to the 1994 EU Directive

The systems of protection in place in Germany deviated from the requirements of the 1994 EU Directive in a number of respects. Rather than adjust its systems, Germany initially objected to the Directive, in general, on the grounds that there was no need for a Community measure because national steps were sufficient. In particular, Germany objected to the Directive's export prohibition. The deposit insurance system for private German banks offered very high coverage. The export prohibition would, therefore, require German banks operating in other EU countries to reduce the cover they offered. That would impede the ability of German banks to compete abroad. The EU's topping-up provision would enable branches of foreign banks operating in Germany to obtain much higher coverage than they offered at home. This provision would expose Germany's generous system of compensation to bank failures arising from less-than-adequate home-country supervision and to foreign banks that maintained riskier profiles than the conservative German banks.

The German authorities thought that mandatory membership was unnecessary because the German systems, with voluntary membership, had operated successfully since 1976. In fact, in 1993, the system run by the German Bankers' Association omitted only five banks that held relatively few deposits.

Germany took its general and particular objections to the European Court. It argued, first, that the Directive violated the EC Treaty; second, that the authors had given insufficient reasons for its provisions; third, that the export prohibition was incompatible with the Community's objective of providing a high level of consumer protection, and, fourth, that it was contrary to the Treaty's principle of proportionality. The German Government argued that the topping up provision infringed the Second Banking Directive's principle of home country supervision and the Treaty's principle of proportionality. With regard to the Directive's obligation for compulsory membership, Germany argued, first, that it violated the EC Treaty's principle of proportionality because Germany already had a 'well-established national practice' in a deposit insurance scheme with voluntary membership, and, second, that it imposed an excessive burden on credit institutions.

The Court rejected all of the German arguments and dismissed both the general and the specific applications for annulment.³⁵ Thus, in order to comply with the 1994 Directive, Germany enacted the Deposit Guarantee and Investor Compensation Act in August 1998 to implement both the 1994 and the 1997 Directives. The statute established two new, compulsory protection schemes (one for private banks and the other for public banks). These systems bestow a right to compensation to a limit of ECU 20,000, with 10% coinsurance. The accounts of other banks and financial institutions, public bodies and insiders were excluded. Both schemes were privately managed by the bankers' associations but fell under the supervision of the Federal Banking Supervisory Office (FBSO). They were funded by premiums set by the Ministry of Finance.

Germany claimed that its privately run schemes did not fall under the EU Directive because they were not subject to public regulation. Consequently, despite establishing new systems of protection, the private guarantee systems continue to function with only minor adjustments. For example, the system for private banks now insures deposits over ECU20,000, those excluded by coinsurance, and others excluded from the official scheme. The three schemes for public banks, savings banks, and co-operative banks continue to function.

3.6 Case study: Italy³⁶

Until the 1970s, the Italian public was confident that failures would occur only at small banks. To rescue small failing institutions, a mutual guarantee scheme was set

up for savings and loan associations in 1927, for agricultural credit associations in 1961, and for co-operative banks in 1978. The country faced the first post-war possibility of a large bank failure in 1974, when Banca Privata Italiana failed and was rescued with public funds.³⁷ The method of intervention was strongly criticised but was not rectified until after Banco Ambrosiano failed and was rescued in 1982, again using public funds. At this time, discussion was under way in the EU about establishment of deposit insurance community wide. There was debate in Italy too, but the emphasis was on establishing a scheme in order to avoid the use of public funds to bail out banks. The discussion crystallised with the failure of Cassa di Risparmio di Prato, which was placed into receivership in 1988. The Interbank Fund for Deposit Protection (IFDP) in Italy was initiated in 1987 in order to avoid an anticipated public bailout of this latest banking casualty.

The System in Italy before the 1994 Directive

The IFDP was run by a consortium of banks that joined voluntarily. Members needed to meet certain prerequisites, could be sanctioned, and expelled. The principle of host country responsibility was followed—branches of foreign banks operating in Italy could join, but branches of Italian banks abroad were not covered. Membership was confined to banks. There was no fund, but banks in the system set aside resources that combined to a maximum of 4,000 billion lire system-wide (1% of insured deposits) that could be called in when needed. As there was a limit on contributions, depositors would have no right to reimbursement if resources proved to be insufficient. In fact, reimbursement was at the fund's discretion and required approval by the Bank of Italy. Contributions were not adjusted for risk. In principle, coverage was high, at one billion lire (over €CU500,000). In practice, all deposits up to 8,000 million lire had full coverage. Such coverage was 10 times the European average and was extended to every account, not to the sum of a depositor's accounts at the bank. Moreover, interbank deposits were covered.

The Italian Response to the 1994 EU Directive

The IFDP deviated from EU requirements in a number of respects. It was voluntary, privately run, operated under the host country responsibility, did not guarantee depositors a right to compensation, and did not make the mandatory exclusions. Moreover, it offered very high coverage and thus exposed the system to abuse from foreign branches topping up their cover and it guaranteed interbank deposits. (In 1998 Denmark, Finland, France, Germany, Norway and Sweden, in addition to Italy, had coverage limits that exceeded the EU minimum.)

A legislative decree of 1996 took some major steps to bring Italy into compliance with the 1994 Directive. It made participation in a deposit insurance scheme mandatory, reduced the coverage level to 200,000 lire (€CU103,000) per depositor, and made provision for the mandatory exclusion of interbank deposits, a credit institution's own funds, and money laundered deposits.

Subsequently, staff of the Fondo Interbancario di Tutela dei Depositi (FITD) discussed further amending their system with the Bank of Italy and the Italian Banking Association. They considered changing the level of protection and the ex post funding arrangements and enhancing mechanisms for measuring and controlling risk³⁸ In the event, the Statutes and By-Laws, enacted in April 2001, made surprisingly few changes. The Italian scheme continues to be privately run by member banks, but is officially recognised. It continues to offer high coverage. Article 2 of the statute states that ‘All Italian banks, except for mutual banks, shall be members of the fund.’ Membership would appear to be compulsory, yet members can withdraw from the fund or be expelled from it (Article 5), raising the possibility that a bank could continue to operate and take deposits while it is uninsured. It is hard to reconcile this possibility with the requirement in Article 3.1 of the EU 1994 Directive that,

‘Each Member State shall ensure that within its territory one or more deposit-guarantee schemes are introduced and officially recognised. Except in circumstances envisaged in the second subparagraph and in paragraph 4, no credit institution authorised in that Member State pursuant to Article 3 of Directive 77/780/EEC may take deposits unless it is a member of such a scheme.’³⁹

Moreover, there is a limit placed on the total amount of reimbursements that may be made in any one year. Article 27.9 states that that total may not ‘exceed one fourth of the moneys available for interventions.’ Consequently, depositors have no right to reimbursement.

The Statute did make a change with regard to funding the scheme. A callable fund, ranging between 0.4 and 0.8 of repayable funds, replaces ex post assessments. But an ex post element of funding remains. If the fund falls below its minimum level, banks are required to replenish it within four years (Article 21). They also have an obligation to make regular payments to defray the fund’s operating expenses, when requested. Contributions can be increased, or decreased by 7.5% according to the institution’s size. Larger institutions pay at a lower rate than smaller institutions. Contributions are also adjusted according to indicators representing the adequacy of the institution’s provisions for losses and its capital adequacy.

3.7 Case study: Sweden

Sweden experienced a serious banking crisis in the early 1990s and placed a full guarantee on bank liabilities to avoid a melt-down in the banking system. The 1994 EU Directive necessitated that Sweden create a system of limited protection, *ab initio*. The new deposit guarantee scheme, designed to conform to the Directive, was enacted in 1995 and came into effect on January 1, 1996. It guarantees deposits at credit institutions and those securities firms that are permitted to receive cash deposits

from customers. Unlike most EU members, Sweden elected to cover just short-term deposits (of both natural and legal persons) and not to adopt the EU's option list of exclusions. Coverage, at SEK 250,000 or EUR 27,086⁴⁰, is higher than the EU minimum. The depositor does not need to submit a claim for reimbursement and there is no provision for offsetting a depositor's debts to the bankrupt institution against his deposit.

The Deposit Guarantee Board maintains a fund, for which it has a target of 2.5% of insured deposits, and charges premiums that are adjusted for risk, as measured by capital adequacy. The fees are designed to cover both administrative costs and anticipated compensation. The Board has a right to borrow from the National Debt Office, if necessary, and it invests its accumulated resources there. It is a separate and independent body with a small staff housed at the Financial Supervisory Authority and reports to the Ministry of Finance. The Board has made agreements with the Riksbank, the Financial Supervisory Authority and the National Debt Office to borrow staff if a bank fails.

The 1997 EU Directive on investor compensation schemes caused Sweden to enact new legislation which came into effect on May 1, 1999. It covers securities (to SEK 250,000 worth Euro29,200 in 1999) held at licensed Swedish investment firms and branches of foreign investment firms operating in Sweden. Beneficiaries have to file a claim after their firm has been declared bankrupt and can expect payment within 3 months. Members of the scheme pay fees to cover administrative costs to the Deposit Guarantee Board, which operates the scheme. Ex post assessments are levied to cover compensation.

3.8 Case study: the UK

Before the reform legislation of 2000, supervision in the United Kingdom was conducted on industry lines by a large number of different bodies. This regulatory hodgepodge had 'been created by a series of piecemeal responses to specific events or to perceived gaps.'⁴¹ Prudential supervision for banks was undertaken by the Bank of England, for building societies by the Building Societies Commission, and for insurance firms by the Department of Trade and Industry. Securities firms were overseen by the Securities and Investments Board, the Securities Futures Association, the Investment Management Regulatory Organisation, the Personal Investment Authority and by several Recognised Professional Bodies. The changing configuration of the financial markets in the U.K., as elsewhere, particularly the emergence and growing importance of conglomerates, led to a lively discussion of how best to change supervisory structures and practices.⁴²

The debate broadly saw three approaches to the structure of regulation: institutional, functional, and by objective. Under the institutional approach to regulation, dif-

ferent rules applied to banks, insurance companies and investment firms and were administered by specialist regulatory agencies. Functional regulation focused on the type of business undertaken by an institution irrespective of which institutions were involved. (Thus life insurance was regulated similarly regardless of whether it was provided by a bank or an insurance company.) This approach required specialist functional regulators. The third approach was to focus on the objectives being sought by regulation—concentrating on prudential, systemic, or conduct-of-business issues. While it may well be possible to combine prudential and systemic regulation, conduct of business regulation uses different approaches and cultures and was therefore a candidate for separate treatment. The debate also ranged over who should be the regulator or regulators. Should the Bank of England continue to play a regulatory role or should a new body (or bodies) take over the job?

In the event, in the Financial Services and Markets Act of 2000, the United Kingdom chose to consolidate supervision (both prudential and conduct-of-business) for all financial firms in one regulatory/supervisory body—the Financial Services Authority (FSA). The Bank of England retained authority for systemic stability, in addition to its monetary policy responsibilities.

Depositor and Investor Protection before the 1997 Directive

At the same time, the U.K decided to reorganise its several systems of protection for depositors, insurance policyholders, and investors. Until the end of 2001, there were separate protection schemes for depositors in commercial banks, in building societies, in friendly associations, for investors in securities firms, for policyholders at insurance companies, and for pensioners.

These schemes had met with varying degrees of success. For example, the banks' Deposit Protection Board needed to demand £80 million in ex post levies from its members in 1992 to compensate consumers at failed banks. The Investors' Compensation Scheme made levies totalling £224.5 million in order to pay compensation over the five-year period 1997-2001. The Policy Holders' Protection Board made levies of £341.7 million in the four-year period 1992-1995 to cover the reimbursements it made.

Protection in the U.K. After the 1997 Directive

The statute of 2000 created a new body—the Financial Services Compensation Scheme (FSCS). The FSCS's web site [www.fscs.org.uk] describes its role as that of 'a safety net for customers of authorised financial services firms.' It combines under one roof the many predecessor protection schemes. It 'can pay compensation if an authorised firm is unable, or likely to be unable, to pay claims against it' that is, in general, if the firm is insolvent or has gone out of business. The scheme covers deposits, insurance policies and investments. It became operative in December 2001 when the Financial Services and Markets Act of 2000 went into effect. It covers firms

regulated by the Financial Services Authority (FSA) and EU firms authorised by their home-country regulator. It is funded by ex ante levies on authorised firms.

There are limits on the compensation that can be paid. The limits, which vary from scheme to scheme, apply to the sum of each depositor's, policyholder's, or investor's holdings in a failed firm. For deposit-taking firms the limit is £31,700 (EUR 50,700), including £2,000 in full, plus 90% of the next £33,000 (or EUR 52,800 at 2004 exchange rates). For claims against insurance firms, the limit is £2,000 in full plus 90% of the balance, except that compulsory insurance is covered in full. Claims against an investment firm are covered to £48,000 or EUR 76,800 (that is, 100% of the first £30,000 plus 90% of the next £20,000). The scheme covers private individuals and small businesses. Those seeking compensation have to file a claim in order to be considered for reimbursement.

The scheme has three subgroups of member institutions, each with different premium obligations. The first group consists of institutions that accept deposits, the second group consists of firms in the insurance business and the third is for designated investment firms. These groups broadly correspond to the former Deposit Protection Scheme, the Policyholders' Protection Scheme, and the Investors' Compensation Scheme, which were replaced by the FSCs in December 2001. A financial firm's contributions are determined by its sub-group, but it can belong to more than one subgroup.

The ex ante levies on participating firms cover general and specific management expenses and payments for compensation. Specific management expenses and compensation costs are funded only by members in the appropriate group. Levies to cover compensation expenses are forward looking. The FSCs estimates its compensation costs, in excess of the existing fund balance, during the upcoming 12 months and sets its premiums accordingly. It expects to impose only one levy a year but can make additional calls on member resources should the need arise.⁴³ The annual limits on levies to cover compensation are: (1) for depository firms, 0.3% of a participant firms' protected deposits; (2) for insurance firms, 0.8% of a participant firm's net premium income from protected policies; and (3) for investment firms, the total levy must not exceed £400 million. Levies are not adjusted for the risk that an individual institution poses to its fund. A firm will be allocated to a subgroup according to its 'regulated permissions' and 'could be allocated to one or more Contribution Groups, and therefore, Sub-Schemes, by virtue of its permitted activities.'⁴⁴

The FSCs is governed by a board of 10 directors appointed by the FSA. Nevertheless, it is meant to be independent of the FSA. The appointment of the Chairman of the FSCs is subject to approval by the Treasury Department. Although the FSCs is independent of the FSA, it is accountable to it and ultimately to the Treasury. The FSCs has set up three industry committees to advise it, one each for the deposit, insurance, and investment segments.

3.9 Conclusion

This chapter has described the history of depositor and investor protection in the countries of the European Union. From this brief overview and research by Garcia for the IMF⁴⁵ it can be concluded that deposit insurance systems in the EU tend to be older than those in many other parts of the world (the US and Canada excluded), are more frequently privately run, funded ex post, and offer lower coverage when measured in terms of Gross Domestic Product per capita than most other regions of the world.⁴⁶ The system in the Netherlands shares these two latter characteristics.

Between 1995 and 2000, in Europe there has been convergence towards some of the practices favoured by the Financial Stability Forum and often recommended in its technical assistance by the IMF.⁴⁷ Harmonised EU-directives were aimed at establishing minimum standards for deposit insurance system. In addition to those conditions, some countries made further improvements toward internationally accepted best practises. The improvements included making membership compulsory, maintaining a deposit insurance fund, relating the coverage limit to the sum of a depositor's holdings in a bank, and charging premiums related to risk in mature protection systems.⁴⁸ In June 2001, Maxwell Stamp PLC submitted a report to the EU Commission on the compliance of countries in the European Economic Area (EEA) with the 1994 Directive on deposit-guarantee schemes. Maxwell Stamp's final report concluded, 'All countries are compliant with the spirit of the Directive, and indeed most are compliant with the particular articles.'⁴⁹

4 Depositor and investor protection in the Netherlands

4.1 Introduction

The harmonised directives, while establishing minimum standards, do give national authorities ample discretion in designing their financial protection schemes. This chapter will describe how the systems in the Netherlands have evolved over time, and will assess where they confirm to internationally accepted standards, and what improvements toward good practices are possible. It is structured as follows. To put the analysis in a historical perspective, the next section will briefly describe the early history of the financial protection schemes in the Netherlands. Section 4.3 lists the factors that have influenced changes to the original system of 1978. Section 4.4 describes in detail the current schemes in place in the Netherlands in 2003. Section 4.5 gives an assessment of these schemes against the backdrop of internationally accepted good practices. Section 4.6 draws conclusions.

4.2 Early history

Discussions concerning the introduction of deposit insurance date back in the Netherlands to 1965, following the merger of four large banks that prompted debate on the need to revise the existing 1956 Act on Supervision. A second trigger for introducing deposit insurance was the bankruptcy of a small Amsterdam bank, Teixeira de Mattos, in 1966. The fact that depositors lost their money was covered extensively in the press and DNB was heavily criticised. A third trigger was the debate on deposit insurance being conducted by the European Commission, as discussed in Section 2 above. A revised Act on Supervision was not enacted until 1978, however, following slow and deliberate debate and subsequent additional revision to conform to an EEC supervisory directive that was designed to co-ordinate banking legislation across EU countries. The introduction of a deposit insurance system was, therefore, delayed until the scheme could be included in the 1978 revised Act on Supervision. Nevertheless, the Netherlands was one of the first EU members to respond to the discussions underway in the European Community by establishing a system of deposit insurance.

The system of 1978

The deposit insurance system introduced in 1978 reflected some particular features of the Dutch financial system. First, the banking market was then dominated by a

small number of large banks. Second, these banks were so sound that it was virtually impossible to imagine that they would fail. Failures were expected to occur only among small banks. And, indeed, this expectation has been borne out by subsequent events. Third, the law required the central bank, which, as the banking supervisor, was to act as the deposit insurer, to consult with banking trade associations. The associations' views were instrumental in the design of the system.⁵⁰ The large banks preferred to share the costs of any such failures among themselves after the event, rather than contribute to a fund and pay its associated administrative costs. The large banks also anticipated that the insurance fund would earn a lower return on the monies they contributed to it than they, themselves, could earn in house.⁵¹

In the Act, the definition of credit institutions was widened to encompass all institutions that received funds (repayable at less than two years notice) from the public and granted credit and/or made investments for their own account. Supervision was extended to capital market institutions and near banks, such as mortgage banks. Membership in the deposit insurance system was expanded accordingly. Within a few years after the introduction of the deposit insurance system, two banks went bankrupt: Amsterdam American Bank in 1981, and one of the mortgage banks (de Tilburgsche Hypotheekbank) in 1982. Two other mortgage banks were rescued with the help of insurance companies who took them over.⁵² The last bank to fail in the Netherlands was the Amsterdam branch of BCCI, in 1991. This implies that since the introduction of the deposit insurance system, three banks have failed. No information is available as to the amount of total and insured deposits at these institutions.⁵³

4.3 Factors influencing changes to the 1978 system

Over time, four factors, in particular, have influenced changes to the deposit insurance system in the Netherlands since 1978. First, as shown above, discussions leading to the 1994 directive on deposit-guarantee schemes required deposit insurers in many EU countries to make changes to their systems of deposit protection that harmonised systems in the different member countries to a minimum extent and provided a more level playing field by limiting competition through deposit insurance coverage. The second factor was a changing landscape of the financial markets in Europe in general and in the Netherlands, in particular. Third, as described in Chapter 3, the blurring of distinctions between different types of financial firms and the increasingly complex design of financial instruments led the EU in 1997 to a second EU directive on investor compensation schemes. The fourth factor is the reorganisation of Dutch supervisory agencies that took place in the second half of 2002. These factors will be discussed below.

Harmonisation of regulation: the EU Directives of 1994 and 1997

As we have seen, the EU-Directive of May 1994 on deposit guarantee schemes estab-

lished certain minimum standards for deposit insurance systems in member countries and temporarily precluded competition from branches of foreign banks that offered higher coverage than their domestic competitors ('the export prohibition'). This directive led to the introduction of a revised scheme in the Netherlands in 1996, although the authorising law was enacted earlier, in July 1995. The Netherlands did not change its system of protection greatly. The deposit insurance system in operation in the Netherlands in 1996 is summarised in column 3 of Table 2 on page 46.

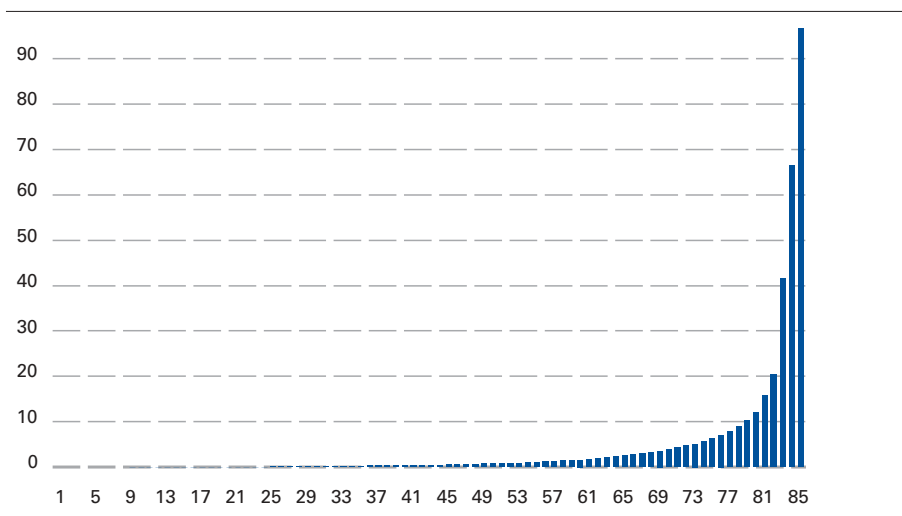
As mentioned above, the blurring of distinctions between financial firms and financial products caused the EU to decide that it had become difficult to separately identify deposits from other forms of consumer saving and that these other forms of savings warranted protection. This formed the third impetus to change in the Netherlands and the EU. As described in chapter 2, the EU Parliament enacted a directive in 1997 on investor compensation schemes to provide protection to investors in the securities markets. The 1997 directive led to a second, and more substantial, revision in the Dutch system of protection that took place in 1998. It caused not just the revision of the deposit guarantee system for banks, but also the creation of a separate system to protect investors in securities firms. A large percentage (approximately 80%) of securities business is conducted in the Netherlands by banks. Consequently, to conform to the 1997 EU directive, the banks' system of protection was extended beyond deposits to encompass securities in what is called 'the Collective Guarantee Scheme of Credit Institutions for Repayable Funds and Portfolio Investments (CGS).'⁵⁴ This enlarged scheme continued to be run by DNB. Protection for the remaining 20% of the securities industry was attained in a separate scheme—the Investor Compensation Scheme (ICS). The ICS was operated by the Securities Board of the Netherlands (later the Financial Markets Authority) from 1998 to 2002. In September 2002, as part of a major supervisory reorganisation described below, responsibility for the ICS was transferred to DNB. The major features of the CGS and the ICS are summarised in columns 4 and 5, respectively, of Table 2.

The Changing Financial Environment

Concentration has been an enduring factor in financial markets in the Netherlands. Mergers between major banks have taken place since the 1960s and have led to a highly concentrated banking sector. The percentage of banking assets held by the five largest Dutch banks was 82% in 2000. This degree of concentration was much higher than the European average of 55% in 1999 and more than four times that observed system-wide in Germany.⁵⁵ The cumulative distribution of asset holdings in the year 2000 is shown in Chart 3, which emphasises the dominance of the three largest banks.

Since the late 1980s the financial sector in the Netherlands has changed considerably. Deregulation⁵⁶, financial engineering, globalisation; conglomeration; the blurring of distinctions between banking, insurance, and securities activities; the EU's single market for financial services; the creation of the euro; and growing recognition of the

Chart 3 Bank concentration in the Netherlands. Assets of individual banks as percentage of total assets (cumulative), 2000



Source: DNB.

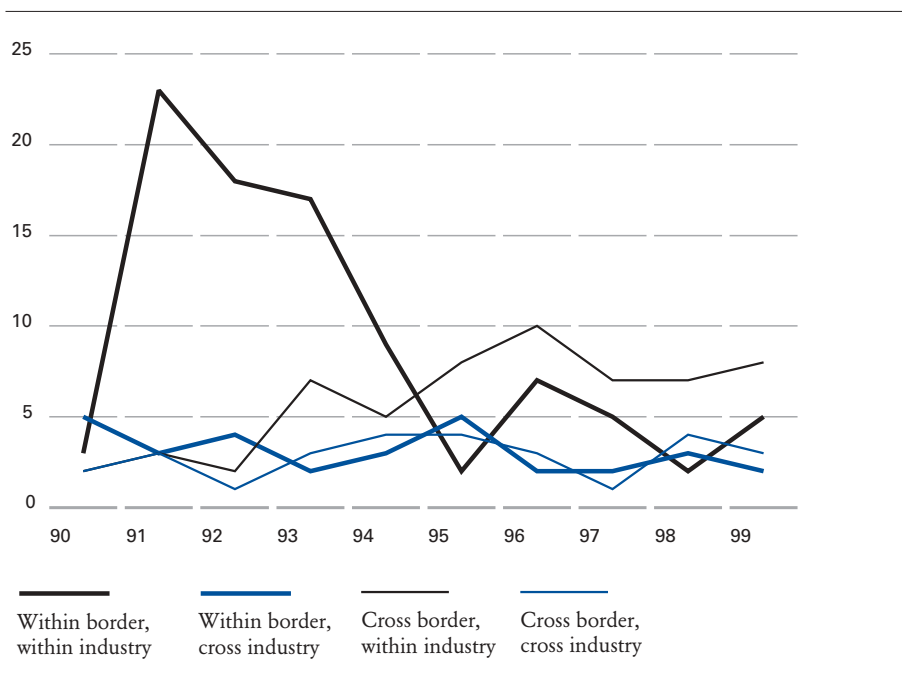
importance of financial integrity and consumer protection have affected financial markets world-wide. These developments caused changes in supervisory law and practice in the Netherlands and revisions in its system of deposit protection.

Chart 2 in chapter 2 illustrates the trend of internationalisation and financial conglomeration in a number of EU-countries. Chart 4 does the same for the Netherlands. It shows that the number of deals consummated within the Netherlands during the 1990s within the same segment of the financial sector was particularly high in the first half of the decade. In the second half of the 1990s, the number of cross-border deals within the same segment of the industry became prominent.

Changing Supervisory Structures

Major changes in the structure and market composition of the financial sector have necessitated compensating changes in the institutional framework of financial supervision systems and a revision of supervisory practices in the Netherlands.⁵⁷ Initially, supervision in many countries, including the Netherlands, was applied separately to commercial banks, insurance companies and securities firms. To a considerable extent such sectoral supervision continues to be practised in the United States, where legislation for many years separated commercial from investment banking and continues to isolate banking from commerce. But such a separate-industry model was never particularly appropriate in many of the financial markets in Europe, where universal banking has frequently prevailed. As discussed in Section 2 above, in some countries, such as the United Kingdom, the growth of financial conglomerates has

Chart 4 Financial consolidation in the Netherlands: number of deals in the financial sector (mergers and take-overs) classified by acquiring firm



Source: Constructed by the authors from GIO data (2000).

led to the creation of a single supervisor that oversees all three segments of the financial markets.⁵⁸

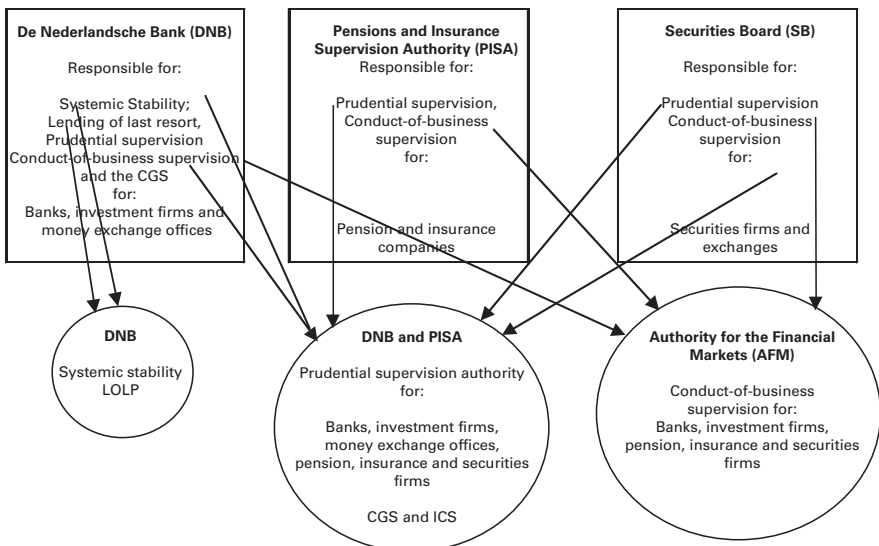
Conglomerates evolved over time in the Netherlands, as Figure 4 illustrates. During the 1980s, for example, banks in the Netherlands increasingly undertook securities activities. Further, following the removal, in 1990, of a prohibition on combining banking and insurance activities in the Netherlands, mergers and acquisitions among financial firms from different industry segments lead to the creation of conglomerates in the local market.

Nevertheless, the separate-industry model of supervision continued to dominate the supervisory scene in the Netherlands until the 1990s. De Nederlandsche Bank (DNB) was responsible for systemic stability and it also supervised individual banks, money exchange offices and collective investment schemes with regard to their safety and soundness and their conduct of business. The Bank also ran the cgs. The Pensions and Insurance Authority oversaw pensions and insurance companies, and the Securities Board guided securities firms and the exchanges and ran the ics.⁵⁹ This apportionment of responsibilities is illustrated in the boxes in Figure 5.

During the 1990s, however, the changed financial landscape increasingly pointed to the need for a revision of regulatory and supervisory responsibilities. For example, the development of bancassurance in the Netherlands has led to increasing co-operation by the bank and insurance supervisors. To complete this process, legislation has been proposed to unify the two supervisors as soon as possible. Thus, supervisory structures have changed in recognition that technological change has facilitated the blurring of banking, insurance, and securities markets. In 1999, a Council was established to co-ordinate the supervision of the three components of the financial services industry. In 2002, a major reorganisation was accomplished. Supervision would no longer be conducted by industry, but rather on a cross-sectoral basis with emphasis on (1) systemic stability, (2) the soundness of individual financial institutions, and (3) the proper conduct of business.

The responsibilities for these three functions are now apportioned as follows. The Bank retains responsibility for systemic stability and prudential supervision of credit institutions. It co-operates closely with the Pensions and Insurance Supervisory Authority to undertake the prudential supervision of insurance companies. As mentioned above, these two supervisors are expected to be fully integrated no later than January 1, 2005. The Bank took over from the Authority for Financial Markets the prudential oversight of securities firms. It continues to operate the CGS and has acquired responsibility for the ICS.

Chart 5 Reallocating Supervisory Responsibilities in the Netherlands: The Institutional Design of Financial Supervision Before and after 2002



The Securities Market Supervisor changed its name to the Authority for Financial Markets and has taken responsibility for conduct-of-business supervision for all financial firms. The Council of Financial Supervisors, created in 1999 to co-ordinate regulation across the different industry supervisors, remains in operation after the 2002 reorganisation to facilitate supervisory co-operation. A Covenant between the three supervisors sets the ‘rules of the game.’ The reallocated responsibilities are illustrated in the circles and ovals in Chart 5.

4.4 Depositor and investor protection in 2003

This section describes the CGS and ICS that are in place in the Netherlands in detail. It focuses on membership, funding, charges, governance, coverage, provisions for repayment and public relations.⁶⁰

Membership

Membership in the systems of protection for both depositors and for investors is compulsory for credit institutions and for securities firms.⁶¹ In both systems, branches of banks or securities firms that operate in the Netherlands, but have their headquarters in other EU countries, are covered by the protection scheme available in their home country. The EU directive requires that such banks or securities firms be allowed to ‘top up’ the cover they offer by joining the scheme in the Netherlands if it offers additional coverage. Although the Netherlands restricted the implementation of the EU Directive to the minimum level required in that Directive, it has made bilateral agreements with certain countries to permit topping up.⁶² Similarly, for both schemes, Dutch banks or securities firms cover the deposits and/or securities when they operate in countries in the European Economic Area (EEA).

Funding

The funding systems of the CGS and the ICS differ. There is no fund for the CGS. To avoid a delay in payment, DNB advances funds to insured depositors and then asks member banks to repay the (interest-free) loan. After having made a first estimate of the insured deposits at the failed institution, DNB calls upon surviving member institutions to cover the estimated costs. These immediate charges are provisional and have in practice thus far been based on total deposits. Second, as regards the final settlement, which will be arranged after the liquidation has been settled, DNB leaves it to the representatives of the banking sector to agree upon the final basis for the ex post assessments. Hence shares are determined, case-by-case, by agreement among the representative institutions. If the representative institutions cannot agree, DNB would make the apportionment.

The ICS maintains a fund of EUR 11.3 million for compensating investors. This fund

provides the first tranche of funding in the event of the failure of a securities firm. Contributions to this fund were drawn from securities firms, which have also agreed to provide, ex post, a second tranche of EUR1.3 million in case the fund is not sufficient to cover the expenses. The banking industry together with the securities firms will, ex post, provide any additional sum in case the first two tranches are not sufficient in a particular case. Note that the banks do not benefit directly from the ICS, as investor claims against failed banks are paid under the CGS.

It is clear that there is some room for improvement in removing ambiguities in the current funding arrangements. Already the CGS covers both the banking and securities businesses undertaken by banks. But no bank has failed since 1991; consequently, the CGS has not yet faced the difficult decision of how to apportion ex post assessments among surviving institutions that have both banking and securities components. It is not clear how the representative trade associations responsible for the apportionment would react if a bank failed. Moreover, the Decree of 28 September 1998 is open to different interpretations. For example, Section 12.1 reads,

‘the Bank, after consulting the representative organizations, shall fix the apportionment percentage, determining in addition, with due observance of 2(4), whether this shall involve one apportionment percentage for all compensations or two apportionment percentages, one for the compensations to creditors and one for the compensations to investors.’

Section 12.2 continues,

‘The apportionment percentage for each participating institution shall be established on the basis of the data in consolidated prudential balance sheets provided to the Bank by participating institutions prior to the time of the decision as defined in section 3(1). In consultation with the representative organizations, the Bank shall also decide which consolidated prudential balance sheet items shall be used and which items in these balance sheets shall be included in this calculation, which is conducted by dividing the aggregate amount of these items of all participating institutions and multiplying the outcome by one hundred percent. Data from the insolvent institution shall not be included. The calculation may be conducted for the covered claims of investors and creditors either separately or collectively.’

The wording quoted above leaves room for different approaches to setting protection charges for the deposit insurance system. It does, not, for example, preclude making assessments that are adjusted for the risk that an institution poses to the fund. Stronger member institutions can be expected to favor risk-adjusting charges whether they be imposed ex ante or ex post.

For both the CGS and the ICS, there is an annual limit of 5% of own funds on the total amount that can be collected from the industry in any year and a similar limit of 5% of own funds on that that can be contributed by any individual bank or secu-

rities firm. Any excess over these limits will be temporarily provided by the guarantor free of interest charges. DNB has, in the past, used its seigniorage revenues to cover the costs of bank supervision and administering the CGS and has, therefore, not imposed charges on credit institutions for these services. Some would see this as an additional subsidy to the industry. The Netherlands Securities Board on the other hand, which until 2003 was responsible for the carrying out of the ICS, does charge the supervised institutions for its services.

The new institutional design of financial supervision in the Netherlands in 2002 has triggered a debate about covering the cost of financial supervision. This has resulted in changes to the system of financing of financial supervision. In the new system, banks contribute to the cost of supervision.

Premiums

Although the bases for imposing charges on member institutions differ between the CGS and ICS, neither scheme currently adjusts the charges it imposes for the risk that a member poses to the scheme. Securities firms make a uniform fixed payment to the ICS and a variable payment of EUR5.8 per client. There is a similar annual limit of 5% of own funds on the total amount that can be collected from the industry in any year and a similar limit of 5% of own funds on that that can be contributed by any individual bank or securities firm. Any excess over these limits will be provided by the Bank free of interest charges.

Governance

Statute decrees that the Ministry of Finance designate certain trade associations to represent their members in cooperating with DNB in running the protection schemes. For the CGS, the credit institutions are represented by the Banker's Association.⁶³ For the ICS, the Ministry of Finance has designated both the Bankers' Association and the representative organizations of the brokers, the securities dealers and financial advisers. This statutory obligation for the implementers of the protection schemes to consult and cooperate with the member organizations reflects the culture of consensus, which is characteristic of the Netherlands.⁶⁴

Coverage

The EU directives attempt to provide parity in minimum coverage for depositors and investors. The Netherlands has adopted the EUR20,000 minimum coverage under the ICS, as well as the CGS. Deposits and investments held at credit institutions of persons, foundations, associations, and small enterprises are each covered to EUR20,000. The limit applies separately to deposits and investments.⁶⁵ It applies to the sum of a person's holdings, including those held in joint accounts, at any failed bank or securities firm. In accordance with the EU Directive mandatory exclusions, the member's own funds, those of other credit institutions, and money-laundered funds are excluded from coverage. The Netherlands has adopted the EU Directive's list of optional

exclusions with one exception: it does cover foreign currency deposits. In both schemes, the deposits/investments of banks, insurance companies, pension funds, government bodies, insiders, and money launderers are excluded from coverage.

Provisions for Repayment

The cgs guarantee comes into effect when the Bank determines that a credit institution cannot repay its deposits or fulfill its obligations to investors and will not be in a position to do so in the near future. At this point, the Bank issues notification that requests for compensation may be submitted. The depositor's/investor's claim against the failed bank is set off against the bank's claims against the customer. Fear of illiquidity might be a strong motivation to run for those depositors that have both their loan (a mortgage for example) and their deposit at the same bank. Some analysts point out that offsetting both loans that are current and loans that are in arrears could threaten the viability of sound borrowers who are unable to refinance their loans elsewhere. Better practice would be to offset only loans that are due or that are not current. This avoids unfairly penalizing good borrowers (with adverse macroeconomic consequences) especially as it is typically easier to borrow from a bank that keeps one's deposit. Offsetting is common practice in depositor protection schemes around the world, however. To aid depositors in failed banks to submit claims telephone numbers, a mail address and e-mail address are supplied for an applicant to request further information. The speed of payment is not fast, namely 3 months after a claim is filed. This period can be extended for another 3 months, however, if the implementer is of the opinion that the claimant has provided insufficient information to support his claim.⁶⁶

The procedures for repaying investors under the ICS when a securities firm fails have changed because of the transfer from the Securities Board to DNB. Claimants will submit their claims to or obtain necessary information from DNB. The speed of payment is similar to that in the cgs, namely 3 months after a claim is filed. As in the cgs, this period can be extended for another 3 months.

Public Relations

As discussed above, there may be different objectives behind protecting depositors and investors. In the 1994 EU Directive, deposit insurance has two stated goals: to promote financial stability by discouraging bank runs that can spread and lead to financial crisis, and to provide protection for the small depositor. As envisaged in the EU 1997 Directive, protection for small investors is principally an element of consumer protection, which is but a secondary consideration for many countries offering deposit insurance. With regard to public relations, DNB maintains a web site for those covered by the cgs and provides a brochure explaining coverage. Now that DNB has responsibility for the ICS as well, similar resources are made available to securities investors. In conformance with the spirit of the EU Directives, insured members in the Netherlands are not allowed to use the protection schemes as a market-

Table 2 Systems of Protection for Depositors and Investors in the Netherlands

Feature	1978	1996 to 1998	CGS (1998 to 2003)	ICS (1998 to 2003)*
Objectives	Avoid bank runs Protect small depositors	Avoid bank runs Protect small depositors	Avoid bank runs Protect small depositors and investors at banks	Protect small investors at securities firms
Compulsion	Obligatory	Obligatory	Obligatory	Obligatory
Membership	Banks	Banks	Banks	Securities firms non-banks
Branches of foreign banks or securities firms	?	Yes; for branches of foreign banks	Yes, for branches of foreign banks	Yes; for branches of foreign securities firms
Dutch banks or securities firms	?	Banks operating within the EEA	Banks operating within the EEA	Securities firms operating within the EEA
Suspension of payments	Court on request	Court on request	Court on request	Court on request
Revokes License/cancels registration	DNB	DNB	DNB	Securities Board*
Liquidator	Appointed by Court	Appointed by Court	Appointed by Court	Appointed by Court
Governance Implementer	DNB	DNB	DNB	Securities Board/DNB*
In consultation with	Bankers' Associations	Bankers' Association	Bankers' Association	Bankers' Association and representatives of brokers
Funding	Ex post	Ex post	Ex post	Both a fund and ex post
Immediate	sourcedNB	DNB	DNB	ICS Fund
Final source	Members	Members	Members	Members
Basis	At discretion of banks/DNBAt	discretion of banks/DNBAt	discretion of banks/DNBFixed	amount + number of clients Risk-based
No	No	No	No	Yearly limits on ex post payment
by members	5% of own funds, system-wide, 5% of individual bank's capital	5% of own funds, system wide, 5% of individual bank's capital	5% of own funds system wide 5% of individual bank's capital	5% of own funds, system wide, 5% of individual bank's capital
Backstop	DNB	DNB	DNB	Unclear
Coverage	Persons, foundations, small enterprises	Persons, foundations, small enterprises	Persons, foundations, small enterprises	Persons, foundations, small enterprises
Instruments covered	Deposits	Deposits	Deposits and investments	Investments
Limit	Hfl 25,000,indexed	Hfl 44,000	EUR 20,000	EUR 20,000
Per person	Yes	Yes	Yes	Yes
Exclusions	Banks, insurance companies, pension funds, government bodies	Banks, insurance companies, pension funds, government bodies, insiders, money launderers	Banks, insurance companies, pension funds, government bodies, insiders, money launderers	Banks, insurance companies, pension funds, government bodies, insiders, money launderers
Coinsurance	No	No	No	No
Speed of Payment	As soon as possible after claim received	3 months from claim, plus an extension	3 months from claim, plus an extension	3 months from claim, plus an extension

Feature	1978	1996 to 1998	CGS (1998 to 2003)	ICS (1998 to 2003)*
Public Relations				
By members		Upon request (not allowed to use it as marketing tool)	Upon request (not allowed to use it as marketing tool)	Upon request (not allowed to use it as marketing tool)
By implementer			Brochure, help desk, web site for DNB	Help desk and website of the Securities Board

* In 2003, the ICS was transferred to DNB. The columns describe the system as it was before this transfer.
Sources: DNB archives, DNB 2000a, 2000b, 2000c

ing tool. However, this provision may discourage members from providing necessary information to customers.

The characteristics of the CGS and ICS from 1978 through 2003 are given in Table 2

4.5 Assessment

Systems of protection need to adopt certain characteristics and to eschew certain other practices, in order to avoid moral hazard, adverse selection, and agency problems and to maintain financial integrity and public confidence.⁶⁷ This section assesses the systems of depositor and investor protection in place in the Netherlands against internationally accepted good standards.

Deposit insurance practitioners and most economists advise that a deposit insurance system should be designed to minimize moral hazard, adverse selection and agency problems.⁶⁸ They therefore recommend that the system be:

- 1) Clearly laid out in law and regulation;
- 2) Compulsory;
- 3) Offer limited coverage so that sophisticated customers can exercise market discipline;
- 4) Adequately funded to maintain public confidence;
- 5) Risk-based in the premiums it charges;
- 6) Backed by government funding in the event of a systemic crisis;
- 7) Publicly run where public funds are at risk, but advised by the private sector;
- 8) Accountable but free from unreasonable political interference; and
- 9) Understood by member institutions and the public.

Table 3 lists the recommended practices and indicates whether they are followed by the protection schemes that are currently in operation in the Netherlands and that were described in the previous section. From Table 3 the following conclusions can be drawn. In conformance with good practice, the systems of protection have realistic objectives, operate in a good legal, financial, and political environment, are

Table 3 Practices in the Netherlands and Possible Improvements to Contain the Pitfalls of Guarantees

Issue	Good Practice	Practice in the Netherlands	Possible Improvements
Infrastructure	Have realistic objectives	Goals are set by the eu Directives as consumer protection and fair competition within the eu.	High concentration is a binding constraint on system objectives.
	Define mandate carefully	The mandate is a narrow one; to compensate those guaranteed.	Countries with a broad mandate can pay out more quickly
	Sound legal, judicial, accounting, financial, & political institutions	The country is mature and its institutions are sound.	
Moral hazard	Explicitly define	System is defined in law and regulation	Certain aspects need clarification
	Strong supervision	Is in place	
	Resolve failed institutions promptly	Bank failures are very rare.	Closure has been prompt, but liquidation is slow
	Offer low coverage	Yes: Has adopted the eu's minimum coverage level of EUR20,000 to allow sophisticated creditors to exercise market discipline.	
Adverse selection	Offset loans due or in default against deposits	All loans are offset.	Offsetting good loans can bankrupt sound, unsophisticated borrowers.
	Make membership compulsory	The cgs is compulsory for credit institutions and ics for investment firms that deal with the public.	
	Charge premiums adjusted for risk	Neither the cgs nor the ics risk adjusts its charges to reflect the actuarially fair cost of providing coverage to individual institutions.	Risk adjusting premiums (easier in a funded system) would be financially more efficient and fairer to members.
Agency issues	Create an independent, but accountable system	Both the cgs and the ics are run by DNB.	Within the new legislation, lines of accountability are expected to be clarified and strengthened.
	Confine the representatives of member institutions to an advisory role	The current law gives trade associations a significant role.	The Ministry of Finance will enact new legislation on the cgs and the ics.
	Close relations between the guarantor supervisor and the lender of last resort.	DNB has responsibility for all of these functions.	Ensure that legislation clearly defines responsibilities and decision making
Financial Integrity and Credibility	Be well-funded	There is no cgs fund.	The ambiguity in the responsibility for sharing ex post funding costs in the cgs needs to be removed.
	Supervisor has good data. Guarantor knows system exposure.	Data on condition are good but it is not clear whether they are used for insurance purposes. Information on insured deposits is not available.	Members need to be required to report data on insured deposits.
	Make members responsible for financing the scheme in normal times	This is recommended in the eu Directives and is followed mostly in the Netherlands. However, DNB provides some implicit subsidies. Banks are going to cont to supervision cost, however.	The implicit subsidies need to be recognized and removed.
	Have financial backing from the government in a severe crisis	The eu Directives place no responsibility on governments to support their guarantee systems. The Netherlands government does not provide it, but DNB might well do so.	DNB and the Ministry of Finance should establish, ahead of time, contingency plans to deal with any crisis that might arise.
	Pay out or transfer deposits and investments quickly.	By adhering to the eu's lengthy payout standards, local practice fails to meet this goal.	Thought needs to be given on ways to accelerate payments.
	Inform the public	Everyone involved needs to know the characteristics of the guarantee in order to adapt his behavior and protect his interests.	It is recognized that public relations need to be improved. New publicity campaign will start in 2005.

Source: Adapted from Garcia (2000, Table 1).

compulsory, have strong supervisory systems, are defined in law and regulation, and offer low coverage. However, there are divergences from good practice in that there is no deposit insurance fund, premiums are not adjusted for risk, there is no financial backing from the government, and the arrangements for members to share costs are unclear. Further, the threat of closure is not effective for large banks, the systems' obligations to customers are not known because there is no measure of insured funds, and the repayment process is slow as compared to that in the US, although it obeys EU regulation. Also, all loans from depositors are offset, which 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. Also, a question can legitimately be raised whether providing a deposit insurance subsidy in the form of interest-free financing complies with the EU Directive's admonition that 'the cost of financing such schemes must be borne, in principle, by credit institutions themselves.' It might be preferable for the deposit insurer to build an *ex ante* fund to provide the funds with which to compensate the depositors of failed banks in a timely manner. Alternatively, it could charge banks a fair interest rate on any loans it makes. The current changes to the system of financing of financial supervision, with banks that in the near future will contribute to the cost of supervision by DNB, may provide the opportunity to take this possibility into account.

The changing financial landscape may further prompt a debate about changes to the protection schemes. Since 1992, in the EU the so-called 'single passport' applies to banks. This implies that an institution that has obtained a license to act as a bank in one of the member countries is automatically licensed to operate as a bank in all other member countries. Branches of foreign EU-banks operating in the Netherlands are covered by the protection scheme in their home country. In recent years, foreign bank branches and subsidiaries have come not just from EU countries, but also from non-EU countries. In the latter case, they have obtained a license to act as banks not automatically, but as a result of an explicit approval by DNB. They are required to offer protection to depositors and investors in the Netherlands and hence to take part in the CGS and ICS. Concerns have been raised that some of these banks may have riskier profiles than domestic banks in the Netherlands. They collect deposits in the Netherlands and on-lend them to their emerging-market home countries. These banks have joined the Netherlands' system of deposit insurance. In this way, they may be able to overcome their initial disadvantage of being relatively unknown in the Netherlands in order to gain market share in the Dutch financial system. Moreover, given the process of further economic integration in Europe, it cannot be ruled out that banks from countries that joined the EU in May 2004 will establish branches and subsidiaries in member countries, including the Netherlands. There have been virtually no bank failures in the Netherlands in recent years so that questions concerning deposit insurance have been moot. But the situation could change with the advent of new competitors. The resulting potential for additional failures

increases the need to consider the efficacy of the present system of deposit insurance in the Netherlands.

4.6 Conclusion

In accordance with EU-directives, the Netherlands has systems of protection in place for both depositors and investors. This chapter has studied these systems and concludes that in a number of aspects, the systems conform to the good practices advocated in the literature. The schemes operate under a good legal, financial and political environment, have realistic objectives, are compulsory, defined in law and regulation, and offer limited coverage. However, there are also some divergences from good practice. There is no deposit insurance fund, premiums are not risk-adjusted, there is no financial backing from the government, and the arrangements for members to share costs are unclear. Further, the threat of closure is not effective for large banks, the systems' obligations to customers are not known because there is no measure of insured funds, the repayment process and final settlement are slow and all loans are offset. Finally, improvements could be made in governance structures, accountability, and public relations. The next chapter will concentrate in detail on these potential changes.

5 The Future of Depositor and Investor Protection in the Netherlands

5.1 Introduction

Based on the assessment in the previous chapter and the suggested potential changes with regard to funding, ownership, governance and public relations of the protection systems in place in the Netherlands early in 2003, this chapter discusses a number of strategic decisions to be made when deciding on these changes. It is structured as follows. Decisions on fund size and premiums will be discussed in section 5.2. Section 5.3. looks at possible improvements in governance and accountability. Relations with the public will be touched upon in section 5.4.⁶⁹ In separate boxes, the paper discusses the integration of the deposit insurance scheme and the investor compensation scheme in the Netherlands and the pros and cons of expanding financial guarantees to insurance and pension claims. Section 5.5 summarizes the chapter.

5.2 Issues relating to funding the guarantees

5.2.1 Introduction

The most difficult decisions that need to be made concern the funding for the scheme. Four important issues need to be resolved: (1) whether to meet funding needs with flat rate or risk-based assessments, (2) whether to levy charges *ex post* or in anticipation of needs, (3) the size of the fund and (4) the base on which to make assessments. These issues will be discussed in this section. It should be kept in mind that these issues are intertwined. For example, fund size is a relevant issue only if a choice is made in favour of *ex ante* funding. Moreover, the target fund size may depend on the incentive structure that is chosen. Thus, the optimal fund size may be the outcome of a bottom-up procedure, with credit risk modeling used to estimate the risks for individual members and the optimal premium structure, and aggregation resulting in the optimal fund size. In that case, there is a direct relationship between premiums and fund size. Alternatively, the procedure may be top-down, with aggregate fund size and premium structure determined separately. Moreover, the ownership structure of the protection schemes may also have implications for their funding.

As a background to the discussion about the choices to be made in the Netherlands,

Table 4 gives an overview of funding approaches, pricing and targets in the EEA, the us and Canada. The picture that emerges from Table 4 is that 15 out of these 20 developed countries have a funded system (ex ante financing), and from these 15 countries, 9 adjust deposit insurance premiums to risk. Italy is an example of a country where the fund is limited to cover expected administrative expenses, but with ex post financing through risk adjusted premiums. The countries with risk-adjusted ex ante funding are those that either have witnessed serious banking crises, or that were relatively late in establishing deposit insurance, for example to comply with EU-regulation. The Netherlands is an example of an EU-country that was early in introducing deposit insurance, and has not had serious banking problems. This may explain why the deposit insurance system in the Netherlands has many characteristics that date back to its initial establishment in 1978. Table 4 also gives the degree of bank concentration, measured as the assets of the five largest institutions as a percentage of total bank assets (for the us and Canada: deposits instead of assets). As will be explained below, the degree of concentration may be a relevant variable when it comes to establishing the fund size and premiums. However, as can be seen from Table 4, there does not seem to be a clear-cut picture when it comes to fund characteristics (funding, fund size or target, on the one hand, and bank concentration on the other). Thus, the degree of concentration of countries with a funded system ranges from 19% in Germany to 88% in Sweden. It is on average (not corrected for country size) 59%. In countries with ex post financing, the degree of concentration varies from 26% in Luxembourg to 98% in Liechtenstein and is on average 62%. Likewise, there does not seem to be a clear correlation between fund size or target on the one hand and the degree of concentration on the other. However, targets might be expected to be higher in weaker systems or where there the guarantor has recently had to payout substantial claims. In fact, Table 4 shows that targets range from a low of 0.2% of insured deposits in Ireland, which has had no recent history of bank problems, to 2.5% in Sweden, which suffered a severe banking crisis in the early 1990s. It also shows that countries that do not maintain a fund have flat-rate rather than risk-adjusted premiums.

5.2.2 Ex Ante and Ex Post Funding: a Comparison

An important funding decision is whether to assess banks after or before failures occur. An ex post assessment system is subject to four criticisms. First, it precludes penalizing the riskiest institutionæfor the risk it has already imposed. Consequently, it is unfair in that an institution that fails provides no resources to compensate its depositors. Compensation is provided by its safer, surviving peers. Second, it does not offer good incentives for avoiding unreasonable risk because it makes charges uncertain and discourages risk-adjustment. Third, ex post funding can be economically sub-optimal in its timing. Banks typically fail when the economy is weak. An ex post funding system places all of the compensation demands on surviving banks

Table 4 Funding Approaches and Targets

A Systems with a fund

Country	Fund target	Premiums: F = flat rate R = risk adjusted	Degree of bank concentration ^{a)}
Belgium	0,5% of insured deposits	F	76
Denmark	1% of insured deposits	F	77
Finland	2% of insured deposits	R	86
France	EUR 500 million	R	43
Germany		R	19
(Public Scheme)	3% of loans		
(Private Scheme)	'A reasonable level'		
Greece	'A reasonable level'	F	84
Iceland	1% of deposits	F	82
Ireland	0.2% of insured deposits	F	41
Italy	Estimated operation costs for the year	R	26
Norway	1.5% of deposits plus 0.5% of risk-adjusted assets	R	68
Portugal	No target	R	44
Spain	1% of insured deposits	F	52
Sweden	2.5% of deposits	R	88
United Kingdom	Estimated needs for the year	F	29
United States	1.25% of estimated insured deposits	R	27
Canada	No target	R	77

B. Systems with ex post charging

Country	Premiums	Degree of bank concentration ^{a)}
Austria	F	41
Liechtenstein	F	98
Luxembourg	F	26
Netherlands	F	82

a Assets of five largest banks as a percentage of total bank assets; for the US and Canada: deposits instead of assets.
Sources: Garcia (2000, 2002); Maxwell Stamp (2001); Pistelli (1999); ECB, BIS, IMF, OECD, Bankscope.

at a time when they are already likely to be under stress. Such a pro-cyclical funding arrangement could, conceptually, weaken the banking system at a time of crisis. It would be better, it is argued, to build up fund during good times and deplete it in bad times. In this case, the fund acts as an automatic stabilizer for the macro economy.⁷⁰ Fourth, ex post funding means either that insured depositors have to wait to be compensated until surviving members supply the necessary funds, or the guarantor has to borrow to meet its needs, which may be difficult or more costly in the absence of government assistance.

Funded systems have a number of advantages. First, they ensure that an institution that fails has contributed to the fund that will compensate its depositors. Second, they reduce the cross subsidization of weak institutions by their stronger peers.

Third, a fund facilitates charging risk-adjusting premiums that counter adverse selection and moral hazard. Fourth, the fund can be seen as an automatic macroeconomic stabilizer. Fifth, to assure public confidence, a protection scheme needs to be well funded. While this goal can be met in an ex post scheme, it is easier to achieve where there is a guarantee fund. Sixth, maintaining a large fund reduces pressure on the government to supplement fund resources in recessions when bankers can justifiably claim that paying heavy additional charges to compensate the depositors in failed banks will prejudice their own continued viability. Seventh, compensation can be paid more quickly. In short, maintaining a fund can be fairer to member institutions, speed payouts, increase public confidence, and facilitate macroeconomic policy.

Still, one could argue that there are some drawbacks. These have to do with efficiency in relation to the stability of the financial sector. First, a fund needs to be managed and this involves costs, which have to be weighed against the benefits. A well-managed fund may facilitate the procedure of payment to depositors in case a bank has failed. In countries with many failures this advantage may outweigh the management costs. But if bank failures are very rare, the management costs are likely to be quite large in relation to the efficiency gain in case of bank failures. Second, the fund assets should be low-risk and have high liquidity. They will therefore earn a relatively low return and banks may argue that they would have made a more profitable investment of the premiums paid. However, a credible deposit insurance system requires that, in the absence of a fund, banks keep aside liquid assets for the purpose of ex post financing. If banks believe that the likelihood of bank failures is extremely low, they will argue that the fund size is too high and/or that management costs are too high relative to the expected payouts. This is most likely to be the case in countries with a stable banking sector and/or banks that are either too big to fail or are government-owned.⁷¹ These considerations are leading countries to combine ex ante and ex post funding in order to obtain the advantages of both approaches.

As Table 4 shows, all of the systems that risk-adjust premiums maintain a deposit insurance fund, although the fund size is in some cases, Italy for example, limited in size and merely meant to cover administrative expenses.⁷² Several countries have shifted from a system of ex post funding in recent years to an at least partially funded system to facilitate their adoption of risk-based pricing, which may facilitate risk-based pricing. It is believed that, in order to obtain the full benefits of risk-adjusted pricing, member institutions need to know in advance what they will be charged for the risks they take. Such knowledge will allow them to adjust their operations so that they do not take risks for which they are unwilling to pay.

5.2.3 Fund size and premiums

With regard to funding needs and premiums, those responsible for designing and operating systems of deposit insurance have become increasingly aware of the dangers of moral hazard, adverse selection and agency problems. This has led to efforts to design a pricing scheme for deposit insurance that minimizes these problems by providing an incentive structure that counters the temptation, inherent in an underpriced guarantee, for institutions to take excessive risks. The system of ex post assessment that is in place in the Netherlands does not adjust for risk. Also, the rules regarding assessments are unclear. Good practice requires premiums that reflect the actuarially fair cost of providing coverage to individual institutions.

The problem with opting for a risk-adjusted premium structure is a practical one—choosing a schedule of charges that reflects the risk that each institution poses to the fund without further weakening, even bankrupting, institutions that are already weak. There are issues of fairness and efficiency/effectiveness to be considered. If premiums are set so as to influence the behaviour of member institutions, these institutions need to know the exact basis for the charges that will be imposed so that they can estimate them accurately. Only in this way can they adjust their operations accordingly and eschew risks they are unwilling to fund. As discussed in Garcia and Prast (2003b), the current ambiguous ex post arrangements in the Netherlands do not meet this transparency test. Further, the lack of transparency is counter-productive. The purpose of establishing a risk-adjusted scheme is to charge banks with unduly risky operations for the likely costs to the fund of their activities. The intention is that correct pricing will curb excessive risk-taking.

While the merit of the intention of risk-based pricing is evident, its practicality is subject to challenge. Chan, Greenbaum and Thakor (1992) develop a theoretical model where asymmetric information makes fairly priced deposit insurance impossible. Freixas and Rochet (1995) present a model where fairly priced insurance is feasible but may not be desirable from a welfare point of view, as it triggers a trade off between static and dynamic efficiency. Nevertheless, a number of countries around the world have been attracted to the idea of risk-adjusted deposit insurance charges during the past decade. As Table 4 above has shown, 7 countries in the EEA, the US and Canada adjust premiums to risk. Worldwide, at latest count, 25 countries, approximately one-third of those with explicit systems of deposit protection, risk-adjusted their charges in 2001.⁷³ The approaches used for setting the charges varied from the simplest approach, used in Norway and Poland, of basing assessments on risk-adjusted assets as measured under the Basle capital requirements, to more complex arrangements. Some methods of adjustment are inexplicit, with the regulation merely remarking that the charges reflect the judgment of the supervisory agency (Croatia, Mexico, and Peru). Other adjustment systems are simple and explicit, being based on quantitative criteria, such as capital adequacy (Finland, Hungary, Sweden, and Turkey).

Risk adjusted pricing may rely on backward-looking models based on historical data to set prices for deposit insurance and targets for the fund. The assumption, which is questionable, is that history will be a good guide to the future. Forward-looking models use one of several other approaches, especially ones that focus on volatility and covariance, in order to anticipate the risks that members will impose on their fund in the future and the premiums that will be necessary to cover these risks. Both backward- and forward-looking models can construct their estimates from the bottom up or from the top down.⁷⁴

In the bottom-up approach, a fair premium should adequately compensate the guarantor during a specific time period, such as one year. It is determined and levied on each individual institution. The system's total need for funds during this period is estimated as the sum of the individual premiums. Estimating funding needs from the bottom up is feasible in countries that do not have a very large number of institutions. For example, it would not be feasible for the 8,000 members of the U.S. Bank Insurance Fund (BIF). In a system with a very large number of members, the funds that a system will need during any period can be estimated top down and aggregate needs are shared amongst member institutions in proportion to their deposits or according to their risk classifications. Aggregate funding needs can be estimated (1) judgmentally from the fund historical experience as to what has proved to be adequate in past, from (2) the insurer's own past loss distribution, (3) the insurer's credit risk model, (4) the cost of obtaining private reinsurance for part of the insurer's portfolio, (5) simulations, or (6) information derived from capital notes, issued by the insurer, whose payments would be contingent on the state of the insurance fund.⁷⁵ Some bottom-up and top-down approaches using backward- or forward-looking data are shown in Table 5.

Table 5. Approaches to Forecasting Funding Needs

Outlook	Bottom Up	Top Down
Backward-Looking	Supervisory data Credit scores Loss distributions for individual members	Fund history Insurer's past loss distribution
Forward-Looking	Option pricing for individual members Credit risk models for individual members Individual credit ratings, Market prices for individual members Volatility of individual income statements	Private reinsurance for fund Insurer's Credit Risk Model Simulations Capital notes

Source: Authors' analysis.

Box 1 Option Pricing

When the deposit insurer guarantees deposits, it takes on a contingent claim. The value of this claim can be estimated from a functional relationship based on a number of assumptions regarding the behavior of the function's arguments.⁷⁶ The resulting estimation process can be complex. In the 1970s, however, academics observed that deposit insurance was isomorphic to a European put option written on a bank's assets and they applied the Black-Scholes option-pricing model to simplify the process of finding actuarially fair deposit insurance premiums for individual banks. The model's aim is to use market data to estimate the value, during a specified time period, of the choice (a put option) that a bank has to turn over ('put') its assets and liabilities to the insurance agency when its asset values have declined sufficiently so that the supervisor revokes the bank's license. In the Black-Scholes model, the value of the guarantee is a decreasing function of the bank's asset-to-liability ratio and an increasing function of the volatility of asset returns.⁷⁷

However, it was later recognized that the Black-Scholes approach was flawed because it made inappropriate assumptions. For example, the model assumes normally distributed asset returns.⁷⁸ As observed below, the normality assumption is unrealistic and systematically underestimates probabilities of default. Moreover, the inappropriate assumptions resulted in mis-pricing of far-out-of-the-money and deep-in-the money options.⁷⁹

At the cost of additional computational complexity, some economists have chosen not to make Black-Scholes' simplifying assumptions.⁸⁰ While traders have now adjusted the Black-Scholes model to correct the mis-pricing, the adjustment would seem to be too ad hoc to be useful for evaluating fair insurance premiums,⁸¹ and no consensus has evolved in favor of applying option pricing models in the real world of deposit insurance. Moreover, the authors are not aware of any country that is attempting to use this approach, possibly because of its theoretical and practical problems.⁸²

Others, wanting to use market information to help assess bank risk, have used data on an individual institution's uninsured deposits, senior debentures, subordinated debt, interest rate swaps, credit derivatives, equity prices, charges for privately provided insurance, and credit ratings by rating agencies to supplement supervisory data in estimating the probability of failure. The institution's business mix, its loan concentration, and the structure of its liabilities can also be expected to affect the severity of the insurer's loss. There is also a model where the value of the guarantee/fair premium can be determined as a function of the spread between rates paid on insured and uninsured deposits in a system where banks can offer unlimited amounts of both insured deposits that pay a low rate and uninsured deposits that pay a higher rate.⁸³ The fair price would be determined by simulation exercises, recognizing default risk, to ensure adequate funding..

There are a number of approaches to estimating fair premiums, but the authors are not aware of any method that is ideal from both theoretical and practical perspectives. Box 1 describes the Black-Scholes method of option pricing. That method might (or might not) result in actuarially fair deposit premiums, but may be too complex to be used in practice for regulatory purposes.

Some countries (including Finland and Sweden) tie premiums to the bank’s capital adequacy. Another simple approach is to rely on supervisory data to estimate the probability of failure for each individual institution and its likely cost to the guarantor should the member default. The advantage of this approach is that supervisory data are readily available in developed countries in the form of CAMELS, or similar ratings.⁸⁴ A disadvantage is that supervisory assessments are judgmental, so that their use for setting insurance charges might prove controversial. Nevertheless, several countries in Latin America rely solely on supervisory ratings when setting fair premiums for individual institutions.

Several countries use qualitative supervisory data in conjunction with quantitative measures, particularly capital adequacy. In the United States, for example, the 8,000 banks are divided into 9 groups according to their capital adequacy and CAMELS ratings.⁸⁵ (See Table 6.) Possibly this approach is the best available from both a theoretical and practical perspective, because it relies on the observation, made above, that the guarantor can rely on monitoring, capital adequacy, asset restrictions, in addition to risk-based pricing in order to protect itself from the adverse selection and moral hazard inherent in the guarantee business.⁸⁶ In addition, it is probably not a design accident that the US system is transparent to each individual member but not to its competitors or to the general public. It is necessary not to so alarm the public about an individual institution’s weakness that it leads to runs.

A number of countries (including Canada, France, Italy, and Portugal) use an elaboration of this simple, two-factor, approach. The Canada Deposit Insurance System

Table 6 BIF’s Current Assessment Schedule

In basis points

Capital Group/ Supervisory Rating	a Best Rated (CAMELS 1 and 2)	b Middle Rated (CAMEL 3)	c Lowest Rated (CAMELS 4 and 5)
Well capitalized	0	3	17
Adequately capitalized	3	10	24
Undercapitalized	10	24	27

Source: FDIC (2000).

(CDIC) gives member banks a risk score based on capital adequacy, and a number of other quantifiable and qualitative factors. It then divides banks into four groups and charges them premiums as shown in Table 7.

While relying on supervisory and capital adequacy, supplemented by other data, is theoretically acceptable, estimations of economically fair premiums show that the range of fair premiums is much wider than that currently charged by insurance agencies. In Canada, the progression of insurance premium moves by a factor of two in the ratios 1: 2: 4: 8. While that for the U.S. is steeper, rising by a factor of 3: 1: 3: 9: 27, the progression is less than that suggested by research based on historical loss rates for banks with different CAMELS ratings. This research has shown that, if the best-rated banks were to pay one basis point, the weakest should pay 81 basis points.⁸⁷ Guarantors are reluctant to set such a steeply graded system because of the concern that charging the weakest banks their actuarially fair rate would cause their failure. Possibly this is a transitional, rather than a structural, problem so that an economically wide range would be introduced in a series of steps rather than instantaneously.

A similar approach, based on capital adequacy and supervisory ratings, might seem appropriate and feasible for the Netherlands, should it decide to impose assessments that are adjusted for risk. Since 1999, in its supervisory review DNB uses a risk analysis methodology, supported by in-house developed software Risk Analysis Support Tool (RAST)⁸⁸ that in spirit is similar to the CAMEL approach used in the US. Its main objectives are to create insights into the inherent risks and the quality of controls of credit institutions, and to structure and standardize the supervisory approach in order to maximize the objectiveness of supervision. RAST results in scores that are not available, for the time being not even to the individual bank concerned. The scores, which do take the degree of capitalization of the individual banks into account, are used as the basis for a customized supervisory program. The RAST method, possibly complemented with capital adequacy standards, might provide a practical, efficient and effective method of risk-based deposit insurance pricing in the Netherlands. On

Table 7 The CDIC's Premium Schedule

Premium Category	Total Score	PremiumRate per 1% of Insured Deposits
1	≥ 80	1/24th
2	≥ 65 but < 80	1/12th
3	≥ 50 but < 65	1/6th
4	< 50	1/3rd

Source: FDIC (2000) and CDIC website [www.cdic.ca].

the other hand, using RAST for deposit insurance purposes would require that its scores are publicly available, and this might be considered to be a drawback.

As for the establishment of a target for the fund, a forward-looking approach, such as that used by the U.K., would seem preferable for the Netherlands, which is in the fortunate position that it has a history of a remarkably stable banking sector. There is a potential problem, however, in publicly revealing funding needs over a short horizon in that high estimates would foretell failures to come and might endanger public confidence.⁸⁹ Adopting a short horizon also incurs a problem of procyclicality. Premiums would need to be high during recession times when banks' earnings are already under pressure. In addition, to use it, the protection fund (or funds, if the investor protection and the deposit insurance scheme would be funded separately) would need to research and choose suitable estimation techniques for management expenses and compensation charges.

In general, governments tend to favor the maintenance of a large fund, particularly as it is often invested in domestic government securities. Bankers, on the other hand, prefer to themselves employ the resources that would otherwise be transferred to the fund. They consider that they can use these funds more profitably. The result of the resulting political conflict has often been a compromise to place restrictions on the size of the fund and set a target for it. Premiums will be raised when the fund is below target and lowered (and/or rebates will be made to members) when it the fund is above target. Of course, adjusting premiums to maintain a rigid target will forego the fund's beneficial automatic-stabilizer properties.⁹⁰ The average level of premiums will reflect the current condition of the banking industry, and it will have pro-cyclical properties. Then, premiums may vary substantially from year to year. Such variability has been shown to increase banks' cost of capital in a not insignificant manner.⁹¹

For these reasons, setting a target for the fund has been a political decision in most countries. Perhaps this explains why there has, until recently, been little research on how to scientifically set a target for the fund. Some newly established systems of deposit protection in emerging market countries have set a target judged sufficient to compensate depositors in, say, several small, or two medium-sized, banks. (No country is known to have set a target high enough to compensate depositors in one of its largest banks.) The United States based its target initially on historical experience of what had proved adequate in most years to meet the claims of the depositors in failed banks.⁹² Such an approach would not be useful in the Netherlands, however, where there is little historical experience of failures. Of more possible relevance to the Netherlands would be an assessment of needs based on the supervisor's risk profiles for each individual institution, for example by using the Netherlands's system of supervisory risk assessment (RAST). Alternatively, needs could be estimated from each individual member's credit risk profile as determined in its internal models.

Recent advances in finance theory offer more scientifically formalized approaches to setting a target for the fund. The authorities first choose an acceptable probability of fund default over a specified time period and then estimate, using credit risk modeling techniques, how much capital the fund would need to support this probability. Alternatively, the fund staff could apply contingent claims analysis to determine the minimal optimum fund size as the present discounted value of the fund's expected losses in perpetuity.⁹³ The different advanced approaches are assessed in Box 2.

In a weak banking system, or one with a history of past banking crises, the size of the fund estimated to be necessary to avoid insolvency might be viewed by the banking community as unacceptably high. In this situation, a smaller fund might be maintained to be supplemented by additional assessments on members in the event of unexpected losses. (The BIF in the United States must be supplemented by additional calls when required.) A graphic description of this view of the fund is shown in Figure 3 of Box 2, where the cumulative loss distribution would be divided into four

Box 2 Advanced methods for setting a fund's target

Credit Risk Modeling

In recent years commercial banks have developed credit risk models to determine their economic capital. A bank sees its assets portfolio as a collection of individual risk exposures that can be aggregated into a probability density function (PDF) of cumulative losses in its portfolio. The aggregation makes allowance for volatility in, and the correlations among, the individual losses. The resulting distributions have been found to be highly non-normal—with a high probability of small losses and a low, but significant, probability of very large losses. Although based on historical data, the approach can be seen as forward-looking in that it focuses on volatilities, correlations, and future probabilities of default. In a similar fashion, the insurer can view its exposure to the set of its members as a collection of individual credit risks. Estimating these risks for individual members either from historical or supervisory data, it can aggregate them into a distribution that can be expected to approximate that in Figure 3. It can then set its fund size in relation to the resources necessary to compensate depositors.

A Pay-as-You-Go System without Reserves

The fund might be viewed as covering expected losses in the un-shaded region on the left. Additional calls might be made on members to cover losses in the whole of the shaded region A, while the government would again cover losses in region B, assuming that it has been agreed politically that there should be zero probability of fund default. This interpretation would seem to characterize the system set up in the United Kingdom at the end of 2001. The insurer (the Financial Services Compensation Scheme or FSCS) estimates each year how much its protection schemes will need to meet the claims likely to be placed upon them plus man-

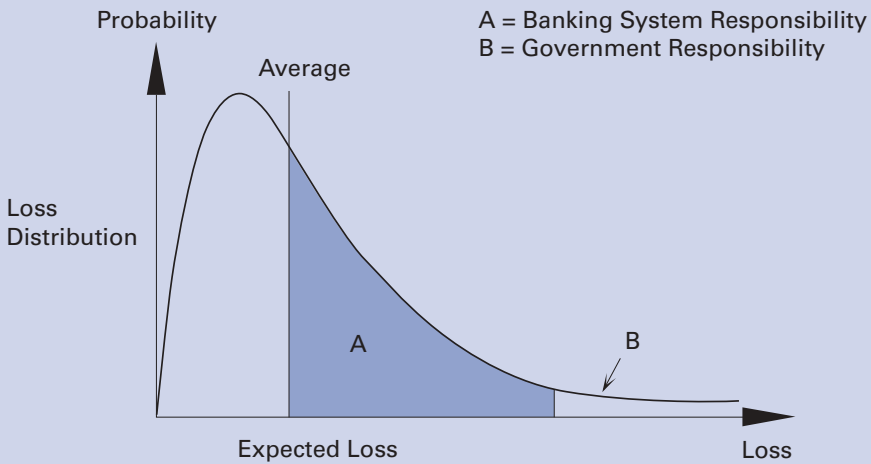
agerial expenses and levies (flat-rate) premiums to cover this estimate. If claims turn out to be higher than anticipated, the FSCS will levy additional charges ex post. There is no provision for U.K. government aid; consequently, ex post calls on members would need to cover regions A and B in Figure 3. Assuming that members would be unable to fund all conceivable losses to the insurance systems, the UK's three protection funds must be seen as having some positive probability of default. One might ask Moody's or S&P to give the UK funds credit ratings, similar to the bond ratings that the rating agencies give to companies (and countries) – ratings that are predicated on the debtor's probability of default. A similar, bottom-up, approach might also be useful in the Netherlands where annual needs might be estimated from supervisory data on the riskiness of individual institutions and the adequacy of their capital to cushion these risks.

Economic Capital A protection system might prefer to hold capital above its immediate known needs in order to protect itself against unforeseen events and improve its (implicit) credit rating. The concept of economic capital is based on a juxtaposition of a bank's expected and unexpected losses. A bank's loan loss reserves are established to cover its anticipated losses in the portfolio, while its capital is required to prevent unexpected losses from rendering it insolvent, except in dire circumstances. The cut-off point in the loss distribution that determines bank capital will carry with it an implied probability of failure, which can be translated into a credit rating, similar to that given by the credit-rating agencies. 'The economic capital for credit risk is determined in such a way that the estimated probability of *unexpected* credit losses exhausting economic capital is less than the bank's 'target insolvency rate.' Capital allocation systems generally assume that it is the role of reserving policies to cover *expected* credit losses, while it is the role of equity capital to cover credit risk, or the uncertainty of credit losses. Thus required economic capital is the amount of equity over and above expected losses necessary to achieve the target insolvency rate.' 94

A Fund with Reserves against Expected Losses

The interpretation of Figure 3 will be different if the fund has adopted the practice of setting aside both reserves to cover expected losses and capital to cushion it against unexpected losses. (The FDIC maintains both loss reserves and economic capital.) If the fund does make provision for expected losses (in the unshaded region), it may view the fund balance in region A (over and above its reserves) as its economic capital against unanticipated losses. It would then set the size of the fund to give it an acceptably low probability of becoming insolvent. This level might well be determined politically, especially if the government will be on tap to cover the fund's catastrophic losses in region B. Where there is no provision for government support, the fund would likely retain a possibility of becoming insolvent. The total amount of funds for reimbursing insured customers that member institutions could afford to pay would determine the probability of sys-

Fig 3 Setting BIF Insurance Reserves



Source: Adapted from FDIC (2000, p. 27)

tem insolvency. A rating agency (such as Standard and Poor's) would give a strong insurer with a very low (0.01%) one-year probability of default a AAA rating, and a weaker insurer with a 0.18% default probability a BBB rating.⁹⁵ An additional approach would be to have a system that sets yearly premiums so as to cover expected future losses plus administrative costs minus the return on the existing fund.

regions. In the un-shaded region, reserves make provision for expected losses. In the left-lying portion of region A, the fund's economic capital over and above its reserves covers some portion of unanticipated losses. In the right-hand portion of region A, ex post calls could be made on banks to pay for those unexpected losses that are not already covered by the fund. In region B, which lies beyond the sum of the fund and additional calls on member banks, the government covers catastrophic fund losses in order to avoid, or contain, a systemic crisis.

At least two Asian countries are currently considering using credit risk modeling techniques to determine their funding needs in soon-to-be established systems of deposit protection. As neither has much historical data on past failures, simulation or 'Monte Carlo' techniques are being used to simulate the fund's potential losses. A similar approach might be used in the Netherlands, as a crosscheck on the adequacy of assessments based on RAST and capital adequacy.

The Pros and Cons of the Different Methods of Targeting

In the United States, the FDIC has a long history and plenty of data on bank failures. It can therefore select from the full range of methods for setting fund targets and use

different approaches to complement one another using historical data, for example, to provide a ‘reality check’ on sophisticated modeling. Deposit insurers, like the cgs in the Netherlands, with a shorter history and fortunate paucity of failures, will not find useful methods that rely on historical data. They might be attracted to the approach that sets a target big enough to compensate depositors in small or medium sized banks or uses credit-risk modeling methods. When using modeling techniques, they would need to rely on Monte Carlo techniques that simulate failure rates around supervisory data on the condition of individual banks.

5.2.4 The Deposit Base

The third decision in funding concerns the deposit base. When making assessments, the guarantor can place charges on one of a number of bases. Although most countries use some measure of deposits, this still leaves a number of alternatives. Premiums could be assessed (1) on ‘total deposits’ in the system, (2) on the sum of deposits held in those accounts that are eligible for insurance or ‘eligible deposits,’ or (3) on the amount of deposits that are both eligible and within the coverage limits or ‘insured deposits.’ It is important to keep these concepts separate; however, it is not clear that all countries appreciate the distinction. They certainly do not use the terminology consistently.

In the Netherlands the total of eligible deposits is unknown. It would consist of total deposits less those for large enterprises and classes of deposits excluded from coverage including the deposits of credit and financial institutions, insurance companies and pension funds, insider deposits, money laundered funds, government deposits, and the deposits of those receiving high rates or financial concessions that have contributed to the bank’s demise. A fortiori, the amount of insured deposits (eligible deposits lying below the coverage limit) is unknown.

Both fairness and finance theory would suggest that the premium (whether risk-adjusted or not) should be applied to the amount of a bank’s deposits that are actually insured. Few countries attempt to do this, however, because banks’ computer systems in many countries are not up to this task. The United States, for example, currently estimates, rather than measures, the amount of insured deposits, because the authorities have been reluctant to impose the costs of making more accurate calculations on member institutions.⁹⁶ As a compromise, a number of countries charge premiums on the aggregate value of those classes of deposits that are eligible for insurance, without attempting to calculate the amounts that lie below the coverage limit.

Nevertheless, regardless of the reluctance to impose additional data-collection costs on member institutions, ideally an insurance system needs a reliable estimate of its exposure. Accurate estimates of the value of each bank’s insured accounts (and the

fund's total exposure) are possible with today's high-powered computers. More importantly, the banks may not have kept an administration of the necessary data in the first place. Collecting and administering these data might be an expensive proposition for banks in European countries that exclude large classes of deposits from coverage.⁹⁷ For the Netherlands, the costs of requiring these data need to be carefully weighed against the advantages of already having data on hand when a bank fails. The high degree of concentration may be helpful in keeping these costs relatively low. Apart from the need for accurate data on the fund's exposure in order to set premiums, relying on bank data, rather than on a requirement that a depositor file a claim and have it verified, could vastly speed the process of paying compensation in the Netherlands. Even if it is decided not to require data on covered deposits on an ongoing basis, it would be useful for member banks to conduct a survey that estimates their coverage exposure at a certain point in time.

5.3 Fund Ownership, Governance and Accountability

5.3.1 Fund ownership

There are different approaches to the ownership of a deposit insurance fund. The system may be owned and run by the government, by a private group, or it can be jointly owned and run. Obviously, decisions about ex ante or ex post funding cannot be taken without considering the issues of ownership, governance and accountability. A government-owned body may be a part of the government or the central bank, or it may be an independent government corporation. A private body is usually incorporated under private law and may have shareholders and a private board representing its members. But many deposit insurance systems have composite organizational structures that comprise both public and private elements. It will be important for the Netherlands to carefully consider the ownership structure for its system(s) of depositor and investor protection, because it can have important implications for its (their) funding. In fact, no government-owned or shared system (except the Netherlands) is exclusively funded ex post.

In some countries, members are seen as paying a fixed fee (a 'user fee') to the government for its provision of deposit insurance services. The government owns the contributions that member institutions make, and will most probably supplement them with taxpayer funds if member contributions prove to be inadequate. In short, the government is in charge of running the system. Such systems are typically funded ex ante with members' contributions being stored in a fund until used to pay compensation to depositors of failed banks. The systems in Canada, the Czech Republic and Hungary appear to fall into the category of user fee models. So too does that in the United Kingdom, except that its revised systems of protection have no provision for government financial aid. User fees may be flat rate or risk-adjusted.

Alternatively, any monies provided, *ex ante* or *ex post*, can be seen as privately owned by member institutions. If there is a government role, it is limited to collecting and dispensing the funds received. There will usually be no explicit provision for state assistance to these systems, which will typically be funded *ex post*. As shown in Table 4, the privately run systems in Austria, Liechtenstein and Luxembourg are privately owned and operated, are funded *ex post*, and have no provision for state aid to the deposit insurance system.⁹⁸ The systems in France, Iceland and Italy, and the privately run system in Germany are privately owned and operated, have no explicit provision for state aid, but they do maintain a deposit insurance fund.

In many instances, it is not made explicit whether the government owns the funds contributed in a funded system, or whether member institutions retain a claim on them. This is the situation in the United States, where the FDIC and many experts consider that the U.S. has a mixed system with mostly public, but some private ownership, best described as a ‘mutual model.’⁹⁹ The deposit insurance system in the Netherlands is unusual in that it is run by the central bank, but is funded *ex post*, the official role is limited, and statute requires DNB to consult (including with regard to funding) with the appropriate trade associations. Consequently, the system might also be characterized as mutually owned, but government-run.

The authors’ attempts in Table 8 at classifying systems in EEA countries, Canada and the United States by ownership, funding, and risk adjustment show that countries today typically maintain a fund. Of the 21 countries described in Table 8, 17 are funded, with 5 having a fund that can be topped up by *ex post* assessments (a mixed system). Only four are funded solely *ex post*. The Netherlands falls into this category. Systems, irrespective of whether they are financed *ex ante* or *ex post*, are almost equally divided with respect to ownership. Seven are government-owned and eight are privately owned. Ownership is shared in five countries. Nine countries (represented in bold type) risk-adjust the premiums they charge. All risk-adjusted schemes in the table (and all but one around the world) maintain a fund to cover the bulk of depositors’ claims.

5.3.2 Governance and Accountability

Combining the central bank, the supervisor, lender of last resort, and the guarantor in one body is known to have disadvantages, causing potential conflicts of interest.¹⁰⁰ This has prompted a number of countries to separate the responsibilities.¹⁰¹ The conflicts between the deposit insurer and the monetary authority are no longer an issue in the Netherlands since it has delegated responsibility for monetary policy to the ECB.¹⁰² However, DNB remains the authority that provides liquidity support. There can be differences in objectives between these three roles. DNB as the deposit insurer might wish a bank to be closed more rapidly than DNB as the supervisor because

Table 8. Ownership and Funding in Systems of Deposit Insurance in the EEA, Canada, and the United States

Ownership/Operation	Funding		
	Ex Post	Ex ante	Mixed
Government		Germany (statutory) Ireland Portugal Sweden Canada	Greece U.K.
Private	Austria Liechtenstein Luxembourg	France Germany (private) Iceland Finland	Denmark Italy
Shared	Netherlands	Belgium Norway Spain	U.S.

Sources: Maxwell Stamp (2001) and Garcia (2002).

Note: Countries in bold face risk-adjust their deposit insurance premiums. Some countries with private systems do have government backing.

international experience has taught that a bank closed sooner is less costly to its insurer than one closed later. On the other hand, closure of a bank usually backfires on the reputation of the supervisor. Therefore, the supervisor may want to give the bank as many opportunities as possible to recover. In addition, the lender of last resort, because it is protected from loss by high quality collateral, may lend to an insolvent institution and, by delaying closure, add to the deposit insurer's losses.¹⁰³ Given the highly concentrated nature of the banking system in the Netherlands, failure of a large bank would inevitably harm the system as a whole. Supervisory efforts are therefore focused on keeping banks sound and correcting any errors they make in order to avoid their failure. The supervisory system has been successful in this respect to date. No bank has failed since 1991. In this situation, it would seem to make little administrative sense to establish a separate, independent body, such as that in the U.K, to run the protection schemes. In fact, the Netherlands has taken the major decision that DNB has responsibility for running the financial protection schemes. However, legislation should be explicit about responsibilities.

The fact that the lender of last resort is typically protected from loss by taking high-quality collateral raises the question why the deposit insurer is not similarly protected from loss. In fact, this idea is the genesis of the narrow bank proposal. Only the deposits only of banks, whose assets were confined to high quality, short-term government securities, would be insured. The idea is intellectually appealing, but runs counter to the flexibility of that is the hallmark of existing banks and the comprehensiveness of universal banking. To the authors' knowledge, no country requires collateral for deposit insurance.

Box 3 Should There Be Protection for Insurance Policyholders and Pensioners?¹⁰⁴

There is, as yet, no general EU directive requiring protection for policyholders in the insurance industry. However, the decline in equity values worldwide has already reduced the value of insurance companies' (particularly life insurance companies') asset portfolios. This phenomenon may continue and may cause solvency problems at weaker institutions. Such a development might well prompt a third EU Directive to protect insurance policy holders. Even without a directive, funds to protect insurance policy holders have been established in at least 21 OECD countries. Such funds are of two types. The first protects policyholders (typically in full) in one or a few branches of the insurance industry, especially where insurance is compulsory.¹⁰⁵ The second type partially covers most contracts written by participating insurance companies. When considering whether and how to protect insurance policyholders, the Netherlands would need to decide whether to (1) cover just mandatory insurance or to include life and property/casualty policies,¹⁰⁶ (2) confine coverage to natural persons, foundations, associations and small businesses, (3) apply coinsurance and or a cap to coverage, (4) fund the scheme ex ante or ex post, and (5) risk adjust premiums.¹⁰⁷

In a similar fashion, stock-market declines around the world have led to reduced values of the portfolios backing pension funds. Consequently, a number of pension schemes offered by private companies are currently seriously under-funded. There is no EU Directive requiring protection for pensioners and the Netherlands does not offer it. There may be a movement to extend protections to insurance policyholders and pensioners within the EU community. The Netherlands may want to consider the possibility of such an extension when it redesigns its systems of protection for depositors and investors.¹⁰⁸

5.4 Relations with the public

5.4.1 Compensation Procedures and the Speed of Payment

Compensation that is delayed for three months or longer, as permitted in the EU Directives, can have serious consequences on public confidence and for macroeconomic policy. Chances are that depositors run from a bank in danger of failing if access to their funds were denied for three months or more because that would be a financial hardship as well as an inconvenience. One can, therefore, question the benefit to public confidence of compensation so long delayed. Moreover, withdrawing failed banks' funds from circulation reduces the money supply until compensation is paid. The macroeconomic consequences of such a reduction in the supply of money would need to be considered by the ECB if many small banks, or one large one, were to fail. The macroeconomic consequences would also include the potential for a credit crunch deriving from capital-constrained banks.

Note the trade off between (1) relying on banking industry data as the basis for paying compensation rapidly and (2) requiring depositors to claim compensation slowly. Using industry data will raise industry administrative costs but increase public confidence in the banking industry and reduce the macroeconomic consequences of bank failure. Using a simpler deposit base would ease the terms of this trade off. While the Netherlands is required to make three EU exclusions, it could certainly reduce the number of optional exclusions it makes and so move to a speedier pay-out process. Moreover, fear of illiquidity might be a strong motivation to run for those depositors that have both their loan (a mortgage for example) and their deposit at the same bank. Some analysts point out that offsetting loans that are current and loans that are in arrear could threaten the viability of sound borrowers who are unable to refinance their loans elsewhere. When considering making changes in the system, the Netherlands may wish to take this into account. The offsetting of loans is common practice around the world, however.

5.4.2 Public relations

DNB recognizes that there is a need for more information to be available to the public regarding the operation of depositor and investor protection in the Netherlands. It is currently planning a public education campaign. There are already a brochure, mail and e-mail addresses, and telephone numbers available to beneficiaries of the CGS and similar resources are made available for investors interested in the ICS. Moreover, DNB has started participation in regular surveys among the general public to assess the general knowledge of DNB and its tasks. As it turns out, only a small minority of depositors is aware of the existence of deposit insurance. These results might be used for public relations purposes regarding the protection schemes.

Legislation already requires the DNB to consult with banking and securities associations in designing the future of the systems of protection in the Netherlands. After the needed decisions on the future configuration of the protection scheme(s) have been made, there are a number of options for conveying the decisions and their implications to the public. There can be public meetings for educational purposes in different parts of the country. A web site can be developed to inform citizens and help them calculate their entitlements. A telephone answering service for questions about supervision is already available to the public. This is a passive, demand-based form of information dissemination. In fact, in a system with flat-rates, actively informing the public has as a drawback that it in fact encourages depositors to entrust

Box 4 Integrating the Schemes for Financial Protection

In addition to the improvements that the Netherlands may consider to make in order to move further towards best practices, it may also want to consider integrating its protection schemes. This has implications for governance, but may also influence decisions regarding funding, for example for the optimal fund size. Since September 2002, De Nederlandsche Bank has maintained responsibility for running the protection scheme for investors in securities firms (the ICS) as well as the scheme for banks' depositors and investors (the CGS). The CGS already covers both depositors and investors, so a question naturally arises whether the ICS should be integrated into the CGS. Doing so would be expected to result in administrative economies. A problem with integration arises in that it would be the difficulty of fairly and efficiently apportion funding costs across a number of financial firms with different portfolios that place different default risks on the fund.

The U.K. Response

The authorities in the United Kingdom addressed the funding problem by seeking administrative efficiency by combining its new protection schemes under one administrative body (the FSCS). At the same time, the authorities recognized that it would be difficult to convince member institutions of the fairness of combining funding for the three diverse schemes. Consequently, the FSCS maintains three separate funds. Nevertheless, the different industry segments in the U.K. experienced failures and demands on their resources at different times and in different amounts. Thus, combining the three funds would have created one diversified fund as compared to three less diversified funds. And finance theory, in general, favors diversification, in the face of a correlation below unity.

Consequently, in making this decision in the Netherlands, DNB needs to weigh the potential efficiencies from diversifying a combined fund across different components of the financial services industry against the difficulty of setting premiums equitably. Research can indicate whether demands on the four industry components negatively correlated and whether diversification could offer financial benefits.

their money to high-risk banks that promise high interest rates, as the deposits are insured anyway. Introduction of risk-based premiums facilitates public relations for the deposit insurer, because the risky banks and their depositors will need to pay more for the insurance.

5.5 A summary of possible changes

The purpose of this study is not to make explicit recommendations but rather to suggest areas for public discussion of possible changes to the systems of depositor and investor protection in the Netherlands. It submits that discussion could profitably address the issues of switching from an ex post to a partially funded system in order to facilitate risk-based pricing, making explicit the basis for insurance charges on banks, reconsidering procedures for offsetting loans against deposits, changing present arrangements for the governance and accountability of the CGs and ICS, continuing and extending DNB's publicity campaign, and considering introducing guarantees for insurance products and pensions.

6 Summary

Marked changes in the financial markets and the supervisory landscape, together with the EU's 1994 Directive on deposit guarantees and its 1997 Directive on investor compensation are causing European governments to reconfigure their systems of protection for depositors and investors.

To be effective, regulatory organisations and supervisory practices need to keep abreast of changes in the composition of the financial markets. In many countries, including the Netherlands, this need has already led to a reorganisation of regulatory/supervisory activities. With the rise of conglomerates, there has been movement away from the old, institutional approach to regulation that oversaw all of the activities undertaken by a given class of institutions. Under institutional regulation, banks were regulated and supervised separately from insurance companies and securities firms. The first supervisory movement was tentative towards functional regulation, where a given type of activity would be regulated and supervised equally by a single regulator regardless of which type of financial firm was conducting it. Here, the banking regulator would oversee banking activities wherever they were conducted, and the securities' regulator would oversee securities activities across all kinds of financial firms. Both institutional and functional regulation encountered problems in a European world dominated by financial conglomerates. Moreover, the EU's early focus was on banking and securities activities, to the neglect of insurance.

The obsolescence of segmented regulation and problems with functional regulation, led to a further supervisory development at the end of the 1990s. Regulation began to be organised according to its objective. One regulatory objective was to preserve the stability of the financial system. A second objective was to require individual financial firms to attain certain prescribed standards in order to protect their safety and soundness and to correct non-compliance with these standards. The third objective was to make sure that financial firms conducted their business operations in an ethical manner 'to ensure that the consumer received a fair and honest service.'¹⁰⁹ Regulation by objective would also encompass the financial system in its wider context of including insurance companies in addition to banking and securities firms.

The changes in the configuration of the financial markets and in the location of their supervisors necessarily had repercussions on the design and location of systems of protection for depositors, investors, and policyholders. The response of some Euro-

pean countries to the changing configuration of the financial markets and to the EU Directives on deposit-guarantee schemes and investor-protection schemes has been described above.

The Netherlands, too, is using the current changes in its institutional design of financial supervision as an opportunity to consider revising the systems of protection. A number of issues are at stake and have been discussed in this paper, which has presented arguments for and against ex ante funding and risk-adjusted premiums. Although some analysts see the arguments as finely balanced, this paper recommends that both ex ante funding and risk-based premiums are worthy of close consideration for change. If the reorganized system(s) are to be funded ex ante, at least partially, this would facilitate risk-adjusting premiums, reduce member institutions' uncertainty regarding funding arrangements, and ensure that failing institutions contribute to meeting the cost of deposit protection. The fund could be financed minimally to cover just anticipated needs and administrative expenses for the current year, or it could be made larger by including capital to cover unexpected losses. Appropriately set risk-based charges could provide proper incentives, although setting appropriate charges is acknowledged to be difficult. A funded system with risk-based premiums would require data on the total value of either eligible or insured deposits (and investments) on a regular basis. Such data would be necessary because a guarantee system needs to know its obligations in order to set premiums and a target for the fund. In addition, the paper recommends consideration of changing current practices with regard to offsetting loans in order protect small-business borrowers, who are also depositors, from having to go out of business as a result of losing their and household mortgage borrowers to keep their homes. The paper also makes a case for ending the current ambiguity regarding the basis for ex post charges. Surviving banks need to know what they are expected to pay.

In context of the European Union, deposit and investor protection is more a matter of consumer protection than financial stability. This approach is partly a reflection of the composition of the European financial system. Given the concentrated nature of the European banking and insurance systems, there is a reluctance to allow financial firms, particularly large firms, to fail. Where financial firms fail infrequently, there will be less of a need to design customer protection systems to be a tool of financial safety and soundness. Other tools will be employed to promote this goal. European emphasis on consumer protection is also a reflection of the EU Directives' focus on the creation of harmonised financial markets. In Europe, instead of designing protection systems to avoid moral hazard, this pitfall is countered and financial stability is ensured more by other means. Capital-adequacy and other regulatory requirements are emphasised, as is their strict enforcement by strong financial supervisors, and in Germany at least, by monitoring by peer institutions. In this context, financial safety nets should be effective in protecting consumers, while at the same time providing proper incentives to the financial institutions concerned.

References

Allen, Franklin, and Douglas Gale (1998) 'Optimal Financial Crises,' *Journal of Finance*, Vol. LIII, No.4, pp. 1245-1284

Beck, Thorsten (2000), 'Deposit Insurance as a Private Club: The Case of Germany,' World Bank Research paper available at [www.worldbank.org].

'Belgium Implements Deposit-Guarantee Scheme,' *International Financial Law Review*, June 1995, pp. 18-20.

Bikker, J.A. and H. M. Prast, (2001), 'De depositoverzekering tegen het licht', ('Deposit Insurance: an assessment'), *Economisch Statistische Berichten* 86 (4331), 820-822.

Black, Fischer (1988) 'The Holes in Black-Scholes,' *Risk*, Vol. 1 No. 4., pp. 30-33.

Blinder, Alan, S., and Robert F. Wescott, Reform of Deposit Insurance: A Report to the FDIC, at [www.fdic.gov/deposit/insurance/initiative/reform.html].

Boot, Arnoud W. A., and Anjan V. Thakor (1993) 'Self-Interested Bank Regulation,' *American Economic Review*, Vol. 83 No.2, pp. 206-212.

Braun, Christian, (2000) 'The Cost of a Guarantee for Bank Liabilities: Revisiting Merton,' *BIS Papers*, Number 1, pp. 354-366.

Brouwer, H.J. (2000) 'Financial Stability in Europe: Challenges for Supervisors, Regulators and Central Banks, speech at the Seminar on the Occasion of the Celebration of 100 years of Financial Supervision in Norway, September 7, 2000.

Brouwer, H.J. (2002) Speech on 'Financial Stability' speech delivered to the CEPR/ESI Annual Conference on Regulatory Challenges for European Financial Markets, September 21, 2002.

Chan, Yuk-Shee, Stuart I. Greenbaum and Anjan V. Thakor (1992), 'Is Fairly Priced Deposit Insurance Possible?' *Journal of Finance*, Vol. XLVII, No.1, March, pp. 227-245.

Cranston, Ross (1997), *Principles of Banking Law* (Oxford, Clarendon Press).

Cruickshank, Cristopher J., 2002, 'The Draft Directive on the Protection of Investors, in *Prudential Regulation of Banks and Securities Firms: European and International Aspects*, edited by Guido Ferrarini (London, Kluwer Law International).

Dale, Richard S. (1998) 'Deposit Insurance: Policy Clash over EC and US Reforms,' in *The Emerging Framework of Financial Regulation*, edited by C.A.E. Goodhart (London, Central Banking Publications).

Dale, Richard S. (2000), 'Deposit Insurance in Theory and Practice,' *Journal of Financial Regulation and Compliance*, Vol. 8 No. 1, pp.36-56.

De Nederlandsche Bank (2000) 'Risk Analysis: the New Tool for Supervision,' *DNB Quarterly Bulletin*, March 2000, pp. 41-47.

De Nederlandsche Bank (2002a), *The Act on the Supervision of the Credit System 1992, as amended*, October.

De Nederlandsche Bank (2002b), *The Credit System Supervision Manual*, July.

De Nederlandsche Bank (2002c), *The Collective Guarantee Scheme*, (a brochure).

Demirguc-Kunt, Asli, and Erica Detragiache (2000), 'Does Deposit Insurance Increase Banking System Stability? An Empirical Investigation' IMF Working Paper WP/00/03.

Demirguc-Kunt, Asli, and Tolga Sobaci (2000), *Deposit Insurance Around the World: A Data Base*, World Bank, mimeo.

Devenow, A., and I. Welch (1996) 'Rational Herding in Financial Markets,' *European Economic Review*, Vol. 40, pp. 603-616.

Dewatripont, M., and J. Tirole (1994) *The Prudential Regulation of Banks* (Lausanne, Editions Payot).

Diamond, D., and P. Dybvig (1983), 'Bank Runs, Deposit Insurance, and Liquidity,' *Journal of Political Economy*, vol. 91, pp 401-??

Diamond, D., and P. Dybvig (1986), 'Banking Theory, Deposit Insurance and Bank Regulation,' *Journal of Business*, 59, pp. 53-68.

EEC (1986), Recommendation 87/63/EEC of December 22, 1986, O.J. 1987, L33/16.

EEC (1993), Directive 93/6/EEC of 15 March 1993, O.J. 1993, L141/1

EEC (1993), Directive 93/22/EEC of 10 May 1993, O.J. 1993, L141/27

European Central Bank (2001) *The Monetary Policy of the ECB* (Frankfurt am Main, ECB).

European Commission (2001) *Study of Deposit-Guarantee Schemes in Credit Institutions in Europe*, Final Report of for the Study ETD/xv/99/09/C, June.

European Court Reports (1997), 'Judgement of the Court of 13 May 1997' Case C-233/94.

European Parliament (1994), Directive 94/19/EC of the European Parliament and the Council of 30 May 1994 on Deposit-Guarantee Schemes, No L 135/5 in the Official Journal of the European Communities.

European Parliament (1997), Directive 97/9/EC of the European Parliament and the Council of 3 March 1997 on Investor-Compensation Schemes, No L 84/22 in the Official Journal of the European Communities.

Financial Stability Forum (2001), *Working Group on Deposit Insurance: Guidance for Developing Effective Deposit Insurance Systems* (Basel, Bank for International Settlements).

Fondo Interbancario di Tutela dei Depositi, Annual Report 1998, available at [www.fitd.it].

Fondo Interbancario di Tutela dei Depositi, Annual Report 2000, available at [www.fitd.it].

Fondo Interbancario di Tutela dei Depositi, Statutes and By-Laws, available at [www.fitd.it].

Freixas, x., and J. Rochet (1995) 'Fairly Priced Deposit Insurance: Is It Possible? Yes. Is It Desirable? No.' Finance and Banking Discussion Paper, No. 4, Universitat Pompeu Fabra, Barcelona.

Freixas, x., and J. Rochet (1997) *The Microeconomics of Banking* (Cambridge, Mass, the MIT Press)

Garcia, Gillian (1996), 'Deposit Insurance: Obtaining the Benefits and Avoiding the Pitfalls,' IMF Working Paper, No 96/47.

Garcia, Gillian (1999), 'Deposit Insurance: Actual and Best Practices,' IMF Working Paper No. WP/99/54.

Garcia, Gillian (2000), Deposit Insurance: Actual and Good Practices, IMF Occasional Paper No. 197 (Washington, International Monetary Fund).

Garcia, Gillian (2002), 'Deposit Insurance Around the World,' unpublished paper.

Garcia, Gillian (2003), The Effectiveness of Deposit Insurance, in Kuppens Thea, Henriëtte Prast and Sandra Wesseling (eds), Banking Supervision at the crossroads, Edwar Elgar Publishing, Chichester, UK

Garcia, Gillian G. and Henriette Prast (2003a), Depositor and Investor protection in the EU and the Netherlands: A Brief History, Research Series Supervision 54, De Nederlandsche Bank, March 2003.

Garcia, Gillian G. and Henriette Prast (2003b), 'Deposit Insurance and Investor Protection in the EU and the Netherlands: A Brief History', Research Series Supervision 54, De Nederlandsche Bank

Garcia, Gillian G. and Henriette Prast (2003c), 'Depositor and Investor Protection in the Netherlands: an Assessment', Research Series Supervision 58, De Nederlandsche Bank

Giammarino, Ronald M., Tracy R. Lewis, and David E. M. Sappington (1993) 'An Incentive Approach to Banking Regulation,' Journal of Finance, Vo. XLVIII, No. 4, pp. 1523-1542.

Goodhart, Charles, Philipp Hartmann, David Llewellyn, Liliana Rojas-Suarez, and Steven Weisbrod (1998), Financial Regulation: Why, How and Where Now? (London, Routledge).

Green, David, and Karel Lannoo (2000) Challenges to the Structure of Financial Supervision in the EU: Report of the CEPS Working Party.

Gropp, R., and J. Vesala (2001) 'Deposit Insurance and Moral Hazard: Does the Counter-Factual Matter?' European Central Bank Working Paper No. 47.

Group of Ten (2001a), Consolidation in the Financial Sector: Summary Report

Group of Ten (2001b), Report on Consolidation in the Financial Sector.

Guttentag, J.M. and R.J. Herring (1986), Disaster myopia in international banking, *Essays in International Finance* 164, Princeton University

Hellman, Thomas F., Kevin C. Murdock, and Joseph E. Stiglitz (2000) 'Liberalization, Moral Hazard in Banking, and Prudential Regulation: Are Capital Requirements Enough?' *American Economic Review*, vol.90, No.1, pp, 147-165.

Jones, David, and John Mingo (1998), 'Industry Practices in Credit Risk Modeling and Internal Capital Allocations: Implications for a Models-Based Regulatory Capital Standard,' *Federal Reserve Bank of New York Economic Policy Review*, October, pp. 53-60.

Kane, Edward J., (1985) *The Gathering Crisis in Federal Deposit Insurance*, (MIT press Cambridge, Mass).

Kyei, Alexander (1995), 'Deposit Protection Arrangements: A Survey,' *IMF Working Paper*, No. WP/95/134, December.

Lindgren, Carl-Johan, Gillian Garcia and Matthew I. Saal (1996), *Bank Soundness and Macroeconomic Policy* (Washington, International Monetary Fund).

Logan, Andrew (2001), 'The United Kingdom's Small Banks' Crisis of the Early 1990s: What Were the Leading Indicators of Failure?' *Bank of England Working paper* no. 139, July.

Markus, A.J., and I. Shaked (1984), 'The Valuation of FDIC Deposit Insurance Using Option Pricing Estimates,' *Journal of Money, Credit and Banking*, vol. 16, pp.446-460.

Matutes, C., and X. Vives (1996), 'Competition for Deposits, Fragility, and Insurance,' *Journal of Financial Intermediation*, 5, pp. 184-216.

Merton, Robert C. (1977), 'An Analytical Derivation of the Cost of Deposit Insurance and Loan Guarantees,' *Journal of Banking and Finance*, 1, pp.3-11.

Merton, Robert C. (1978), 'On the Cost of Deposit Insurance When There Are Surveillance Costs,' *Journal of Business*, 51, pp.439-52.

Merton, Robert C., and Zvi Bodie (1992), 'On the Management of Financial Guarantees,' *Financial Management*, Winter, 1992, pp.87-109.

Merton, Robert C., and A. F. Perold (1993), 'Theory of Risk Capital in Financial Firms,' *Journal of Applied Corporate Finance*, Vol 16, No. 6.

Merton, Robert C. (1998), 'Applications of Option Pricing Theory: Twenty-five Years Later,' *American Economic Review*, June, Vol. 88, pp. 323-349.

Ministry of Finance (1998), Decree Of 28 September 1998 on the Collective Guarantee Scheme, Annex A: Regulations Implementing the Investor Compensation Scheme, *Staatsblad*, The Hague

Montanaro, Elisabetta (2002), 'Deposit Insurance in Italy in the Light of EC Directives,' in *Prudential Regulation of Banks and Securities Firms: European and International Aspects*, edited by Guido Ferrarini (London, Kluwer Law International).

Mooij, J., and H.M. Prast (2002), 'Banking Supervision: the Act on Supervision of the Credit System 50 Years on.' *DNB Quarterly Bulletin*, December 2002

Mooij, J., and H.M. Prast (2003), 'A Brief History of the Institutional Design of Banking Supervision in the Netherlands,' in Kuppens T., H.M.Prast, and S.Wesseling (2003) *Banking Supervision at the Crossroads* (Amsterdam, Edward Elgar

OECD (2002), *Insurance Solvency Supervision: OECD Country Profiles* (Paris, OECD).

Pennacchi, George, G., (1987) 'Alternative Forms of Deposit Insurance—Pricing and Bank Incentive Issues,' *Journal of Banking and Finance*, 11, pp. 291-312.

Pennacchi, George, G. , (1999) 'The Effects of Setting Deposit Insurance Premiums to Target Insurance Fund Reserves,' *Journal of Financial Services Research*, 16:2/3, pp. 63-90.

Prast, H.M. (2001), 'Financial Stability and Efficiency in the Twentieth Century: the Netherlands,' *The Journal of European Economic History*, March 2001, 185-213

Ronn, E.I., and A. K. Verna (1986), ' Pricing Risk-Adjusted Deposit Insurance: An Option-Based Model' *Journal of Finance*, vol. 41, pp. 871-895.

Rubinstein, M. (1976) 'The Valuation of Uncertain Income Streams and the Pricing of Options,' *Bell Journal of Economics*, VI. 7, pp. 407-425.

Shaffer, Sherrill, 1997, 'Deposit Insurance: The Hidden Burden of Premium Rate Volatility,' *the Cato Journal*, Vol. 17, No. 1, (Spring/Summer).

Taylor, Michael (1995), 'Twin Peaks': A Regulatory Structure for the New Century (London, Centre for the Study of Financial Innovation).

Vaez-Zadeh, Reza, Danyang Xie, and Edda Zoli (2002), 'MODIS: A Market-Oriented Deposit Insurance Scheme,' IMF Working Paper, WP/02/207.

Wall, Larry D. (1997), 'Taking Note of the Deposit Insurance Fund: A Plan for the FDIC to Issue Capital Notes,' Federal Reserve Bank of Atlanta, Economic Review, first quarter, pp. 14-30.

Wilmott, Paul (2000) Paul Wilmott on Quantitative Finance (Chichester, John Wiley & Sons).

Notes

- 1 See Garcia (2000).
- 2 Other analysts see the situation differently. Dale (1998) perceives higher social costs to securities activities undertaken by banks as compared to securities firms and argues that they should be met by higher capital requirements.
- 3 Diamond and Dybvig (1983 and 1986) provided the seminal analysis of depositor runs. Matutes and Vives (1996) and Allen and Gale (1998) have extended Diamond and Dybvig's results.
- 4 Devenow and Welch (1999) show that a run on a bank can be regarded as an example of rational herding.
- 5 See Garcia (2000) and Financial Stability Forum (2001).
- 6 See Merton and Bodie (1992).
- 7 Many of these objectives had earlier been compiled and discussed by Garcia (1996).
- 8 See the Financial Stability Forum (2001).
- 9 The issues in this subsection are dealt with in detail in Garcia and Prast (2003a).
- 10 Nevertheless, as indicated in Figure 2 and as measured by the market share of foreign branches and subsidiaries of European banks, the degree of internationalisation is quite low in most European countries. Regional cross-border mergers and acquisitions in Europe are concentrated in Scandinavia and between the Netherlands and Belgium, but international consolidation is hardly found in the rest of Europe. Thus, the bulk of traditional banking activity in the European Union therefore still has a national dimension. Despite this fact, the largest European banks show a relatively high degree of internationalisation, and about one-third of their earnings comes from abroad, with half of their cross-border earnings is generated inside the European Union.
- 11 See Mooij and Prast (2003).
- 12 Germany's system for private banks, established earlier was more comprehensive. Some countries had separate systems for non-bank depository institutions.
- 13 See Dale (1988 and 2000).
- 14 Following the break-up of the Soviet Empire, a large number of deposit insurance systems began in the middle and late 1990s in central and eastern Europe. Developing countries worldwide continue to initiate systems of protection in the new millennium. See Garcia (2000).
- 15 See Dale (1998).
- 16 A number of states in the u.s. initiated protection systems for deposits in the 19th century, but they did not survive.
- 17 Bills introduced into the u.s. Congress in 2002 unsuccessfully sought to unify the systems for banks and savings associations.
- 18 As evidenced in the EEC Recommendation (1986).
- 19 Logan (2001, p. 5).
- 20 Under coinsurance, the guarantee covers a large part, say 90%, of the insured amount while the depositor stands to lose the remaining 10%.
- 21 See Dale (2000).
- 22 From 2005, the German government will no longer be allowed to protect the banking system.
- 23 The modest changes made by the Netherlands are discussed below in Section 3. In 1995, the u.k modified its protection scheme only moderately to conform to the EU directive. It increased the percentage of coverage under its system of coinsurance from 75% to 90% and it raised the maximum insured payment to the greater of L20,000 or ECU22,222. See Cranston (1997).
- 24 Directive 93/22/EEC of 10 May 1993, O.J. 1993, L41/27 and Directive 93/6/EEC of 15 March 1993, O.J. 1993, L41/1. See Cruickshank (1996)
- 25 See paragraph 4 of the EU Directive on investor-compensation schemes.
- 26 See Article 1 of the 1993 Directive, op. cit. The definition can be extended to include undertakings that are not legal persons in certain instances.
- 27 See OECD (2002).
- 28 A majority of OECD countries maintain funds in this instance.
- 29 As far as non-EU countries are concerned Canada, Japan, Korea, Poland and the u.s. have established funds to cover life insurance policyholders. Canada, Korea and the u.s. have applied a cap to the coverage offered. Others (Japan) limit recovery to a percentage of the claim.
- 30 See Belgium (1995)
- 31 See EU Commission (2001)
- 32 See Beck (2000).
- 33 The fact that the minimum capital requirement was ECU5 million meant that coverage could be at least ECU1.5 million. Moreover, as the average capital level was much higher, average coverage could, in fact, be ECU90 million. There is a degree of uncertainty concerning coverage in the German private system for private banks. A depositor could place a deposit at a well-capitalized bank, but later find that the bank's capital, and his/her coverage, had fallen sharply subsequently.
- 34 Beck (2000).
- 35 See European Court Reports (1997).
- 36 See Montanaro (1996).
- 37 By Ministerial decree, an extraordinary advance, derogatively named a 'Sindona advance' was made to compensate the bank taking over the failed bank's assets and liabilities.
- 38 See Fondo Interbancario di Tutela dei Depositi (1998 and 2000).
- 39 The second subparagraph exempts banks from the obligation of membership if they belong to a system that protects them from failure, while the exemption in paragraph 4 requires banks to make alternative arrangements for deposit protection before expulsion.
- 40 Exchange rate on March 18, 2003
- 41 Taylor (1995, p.3).
- 42 See Goodhart et al (1998).
- 43 For the financial year 2002-2003, the members

of the investments sub scheme contributed L56.4 million, while the members of the other two sub schemes paid no compensations levies.

44 See [www.fscs.org.uk/industry/funding].

45 See Kyei (1995).

46 See Garcia (2002).

47 The practices are discussed in detail in Section 2 below and derive from the Financial Stability Forum (2001) and Garcia (2000).

48 Not all of these best practices are universally accepted. See, for example, Demircug-Kunt and Detragiache (2003), who find empirically that explicit funded systems of deposit protection increase moral hazard and the likelihood of a financial crisis in countries with weak institutional (legal and regulatory) structures.

49 See European Commission (2001, p.3).

50 This model of consultation was the formal equivalent of the system of paternal supervision that had prevailed until 1952. See Prast (2001)

51 See Bikker and Prast (2001).

52 To enable this acquisition of the mortgage banks by insurance companies, the Minister announced that he would not automatically withhold his consent if insurance companies and banks were to merge. This was a change in the financial structure policy that had reigned thus far. See Mooij and Prast (2002).

53 The lack of information seems surprising, but is not unusual in the early stages of deposit protection in a number of countries.

54 The regulations regularizing the changes are embodied in DNB (2002).

55 See Prast (2001). The private banking system in Germany is more heavily concentrated, however, as discussed in Section 2.

56 As far as cross-sector mergers are concerned, the 1978 Act on the supervision of the credit system required a declaration of no objection (by the Minister of Finance or DNB) for participation (over five percent) by credit institutions in other institutions. Although the Act did not explicitly forbid credit institutions to merge with insurance companies, the system of declarations of no objection was in fact used to prevent these mergers until 1990 (except for the insurance company takeovers of failing banks in 1982).

57 See Mooij and Prast (2002).

58 See Green and Lannoo (2000) and Section 2 of this paper, above.

59 See Brouwer (2002) and Mooij and Prast (2002).

60 Based on DNB publications and information provided by Casper Riekerk in March 2003.

61 A court ruling concluded that due to a procedural mistake during the negotiations as regards the current scheme, this scheme was not binding for market makers in the securities markets.

62 The EU's export prohibition (that prevented a foreign firm from offering higher than domestic coverage and applied similarly to both schemes) expired at the end of 1999.

63 The Nederlandse Vereniging van Banken (NVB).

64 See Prast (2001)

65 See The Collective Guarantee Scheme (DNB 2002).

66 Information supplied by Casper Riekerk in March 2003.

67 See, for example, Garcia (2002) and FSF (2001).

68 Demircug-Kunt and Detragiache (2003) find empirically that making deposit insurance explicit and maintaining a fund increases moral hazard in developing countries that have weak legal systems and inadequate supervision and regulation.

69 Some might argue that deposit and insurance protection might be made compulsory but being carried out by private institutions. Evidence shows, however, that this type of insurance may not be credible because the deposit insurance fund may go bankrupt along with the failed bank(s). See Garcia (2000).

70 It should be noted that funded systems do not necessarily avoid the problem of pro-cyclicality.

They need to be designed with this potential problem in mind. For example, the system, as currently operated in the U.S. has become pro-cyclical. Consequently, it has been the subject of recent legislative attempts (as yet unsuccessful) to remedy the pro-cyclicality problem. This issue, as it affects the Netherlands, is discussed further in the next section of the paper.

71 Guttentag and Herring (1986) argue that, due to the psychological mechanism of disaster myopia, banks may vastly underestimate extreme downside risks up to the point where the subjective probability is considered to be zero. In countries with a history of banking stability and absence of bank runs, this may imply that banks believe deposit insurance to be unnecessary and therefore inefficient.

72 However, risk-based pricing is possible without a fund. This is the practice used in Switzerland.

73 See Garcia (2002).

74 In comparison, banks themselves typically use an aggregate (top-down) approach to estimating credit risk in portfolios of credit card loans, which are relatively homogeneous. They use a bottom-up approach for large loans where credit risk is quantified for each individual loan after allowing for collateral values. Average losses are aggregated taking account of variances and covariances.

75 Owners of capital notes would receive no interest if the insurer needed contributions from the taxpayer; consequently, they would monitor the fund's condition and reflect their assessment in the market price of the notes. See Wall (1997).

76 See, for example, Rubinstein (1976).

77 See, for example, Merton (1977, 1978), Markus and Shaked (1984), Ronn and Verna (1986).

78 See Freixas and Rochet (1997). Willmott (2000) also challenged the assumptions that transaction costs are zero, the volatility of the underlying asset is either a constant or a known deterministic function, continuous hedging is possible and that there are no arbitrage opportunities.

79 See Black (1988).

80 See, for example, Pennacchi (1987).

81 Braun (2000) describes the necessary adjustment.

82 Chan, Greenbaum and Thakor (1992) demonstrate that it is impossible to implement incentive-compatible, risk-sensitive deposit insurance pricing when depository institutions are perfectly competitive and make zero profits. Subsidies are needed.

83 See Vaez-Zadeh, Xie, and Zoli (2002).

84 CAMELS is the acronym for a supervisory system based on capital, asset quality, management capacity, earnings, liquidity, and systemic risk. CAMELS scores range from 1 (high) to 5 (low).

85 Banks with the best CAMELS ratings (1 and 2) are allocated to group A, those with CAMELS 3 are placed in group B, and the weakest banks (CAMELS 4 and 5) are relegated to group C. The capital groupings are defined in the FDIC Improvement Act of 1991.

86 See Giammarino, Lewis, and Sappington (1993).

87 See Blinder and Wescott (2001).

88 For a detailed description see DNB Quarterly Bulletin, 2000.

89 It is not clear whether the UK will make its annual funding needs public, and if not, how it intends to keep them confidential.

90 This is the situation currently in the United States, where statute requires the FDIC to raise premiums sufficiently to restore the fund, when depleted, to 1.25% of estimated insured deposits normally within one year. There have been, as yet unsuccessful, attempts to reduce this statutory rigidity. Pennacchi (2000) demonstrates fair pricing is incompatible with fund targeting. 'Under fair pricing the notion of stabilizing the ratio of insurance fund balances to deposits must be abandoned.'

91 Shaffer (1997) estimated that steady premiums would save us banks between USD 1 billion and USD 4 billion, equivalent to an insurance premium of between 3 and 13 basis points.

92 That ratio is now embodied in legislation.

93 See Merton (1998), Merton and Bodie (1992), and Merton and Perold (1993).

94 Jones and Mingo (1998, p. 54).

95 The equivalent Moody's ratings would be AAA and Baa2.

96 The FDIC takes the total value of domestic deposits (i.e., those that are eligible for insurance), reduces that total by the total value of deposit accounts that exceed USD 100,000 (the coverage level), and then adds back USD 100,000 times the number of accounts over USD 100,000. This amount is likely to be an over-estimate of the value of insured deposits, because it overlooks the fact that the data available represent separate accounts, whereas the coverage level is applied to the sum of all of a depositor's accounts in the failed bank. A further approximation arises because there is no provision for the extra coverage available in the United States for jointly held accounts.

97 Countries would need (1) data for classes of depositors covered by the guarantee, (2) a distribution of these deposits by size, (3) a method of aggregating one owner's multiple accounts, and (4) an adjustment for joint accounts.

98 Montanaro (2002) argues that the Sindona Decree, however, allows Italy to aid a distressed institution directly.

99 The FDIC is an independent government corporation, member institutions pay premiums to the FDIC, there is a target level for the fund, and member banks' contributions are adjusted to prevent the fund from falling below, or from rising too far above, the target. From time to time over its history, the FDIC has made rebates of surplus funds to members.

100 However, Freixas and Gabillon (1999) argue that combining supervision and deposit insurance has the benefit of reducing information asymmetries.

101 Goodhart et al. (1998) discuss these conflicts in detail.

102 Possibly, the central bank was initially chosen to supply deposit insurance services for four reasons: (1) to economize on specialized staff resources, (2) the Bank could create money and supply the funds quickly to compensate depositors, and (3) make an interest free loan to the deposit insurance system that reduced the cost of deposit insurance to the banking system. Moreover, (4) the central bank's seignorage revenues allowed it to cover its administrative expenses, including those for bank regulation, supervision and deposit insurance, without imposing explicit charges on banks for these services. This situation no longer pertains. DNB is no longer the monetary authority and cannot create money. It still receives seignorage revenues from its role as the implementor of the ECB's policies in the Netherlands. See ECB (2001).

103 For these reasons, the three roles have recently been allocated to three separate bodies in the United Kingdom, where the Bank of England is the monetary authority and lender of last resort, the Financial Services Authority (FSA) is the supervisor and the Financial Services Compensation Scheme (FSCS) is the insurer.

104 See OECD (2002).

105 For example, motor vehicle liability insurance is mandatory under Article 1 of the second European directive on compulsory motor vehicle insurance.

106 Only 9 OECD countries (Canada, France, Ireland, Japan, Korea, Poland, Spain, the U.K. and the U.S.) have established funds to cover life insurance policyholders. In Ireland and the U.K., such coverage is limited to natural persons. Canada, France, Korea and the U.S. have applied a cap to the coverage offered. Others (Japan and the U.K.) limit recovery to a percentage of the claim. Ireland and Poland impose both a cap and coinsurance.

107 The systems in Japan, Korea and the United Kingdom, since 2001, are funded ex ante, while

those in Ireland, Poland, and the u.s. are funded ex post. France uses a combination of ex ante and ex post funding. Assessments are based on premiums in Canada, Ireland, Poland, Spain, the u.k. and the u.s. Only Korea adjusts premiums for risk. The State also provides funding in Japan and Korea.

108 The u.k. scheme, introduced at the end of 2001, includes schemes to protect depositors, investors, pensioners, and insurance policy holders.

109 Taylor (1995, page 1) advocates regulation by objective under 'Twin Peaks' consisting of a Financial Stability Commission to ensure adequate prudential supervision and maintain a sound financial system and a Consumer Protection Commission to enforce conduct-of-business regulation.

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