

The Belgian deposit guarantee scheme in a European perspective

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Introduction

Deposit guarantee schemes provide a degree of protection for depositors' savings when a financial institution is unable to fulfil repayment. These schemes have been in existence for a long time, but the recent financial crisis once again demonstrated their importance.

As explained in the first section of this article, deposit guarantee schemes are not simply consumer protection instruments; they also make a major contribution towards financial stability.

The second section focuses on the advantages and disadvantages of deposit guarantee schemes: they must be carefully designed to achieve two goals simultaneously, as far as possible: namely, consumer protection and financial stability.

The third section describes the current Belgian deposit guarantee scheme and comments in particular on the way it has been modified in the context of the financial crisis.

Finally, the fourth section analyses the European Commission's recent proposals for introducing a new Directive on deposit guarantee schemes, setting out the implications of those proposals and the challenges ahead.

1. Role of deposit guarantee schemes in financial policy

The establishment of a deposit guarantee scheme has two main aims: the protection of depositors' savings and the maintenance of financial stability by the avoidance of bank failures.

1.1 Depositor protection

The primary purpose of establishing a deposit guarantee scheme is to ensure repayment of depositors falling victim to a bank failure.

Generally speaking, most individual depositors have little inclination to check how their bank uses their deposits. Moreover, there is considerable information asymmetry between depositors and bank managers, since the former are not generally able to judge and control the varying degrees of risk in the latter's management strategy (Madiès, 2009a). The cost of acquiring the information on the risk profile of the bank's investments is probably excessive in relation to the resulting advantage for depositors.

Deposit guarantee schemes are therefore justified by the need to protect and represent depositors, seen as a vulnerable population, in order to remedy their lack of control. When such a scheme is set up, the information asymmetry is transferred from the depositors to the body supervising the credit institutions which, in view of its expertise and opportunities for investigation, is assumed to be in a better position to overcome the problems of information asymmetry (Madiès, 2009a and b).

Furthermore, the need to protect depositors is also justified by the potentially very high costs which would result from the loss of their deposits if a bank were to fail. Those

costs are passed on to every individual depositor, but the losses may also have a considerable impact on private consumption, owing to the sudden decline in consumers' wealth, and hence on economic activity as a whole.

1.2 Financial stability

To ensure an efficient banking system, it is necessary to create a climate of confidence and thus avoid panic responses which could destabilise the financial system as a whole. Creation of such a climate of confidence therefore contributes towards maintaining the stability of the financial system, essential for its smooth operation.

A lack of confidence can trigger chain reactions leading to the failure of banking institutions which are, in principle, solvent and sound. A run on the banks may be precipitated by ill-informed or misinformed depositors, unable to distinguish between negative information concerning the sector as a whole and the situation of their own bank. A panic response is generally based on self-fulfilling behaviour by savers, all anticipating large-scale withdrawals by other depositors and rushing to recover their deposits. Since the value of the bank's assets in the event of compulsory, early liquidation will be less than the amount of the deposits, the bank may be perfectly sound (or solvent) yet driven to fail by a bank run (Diamond and Dybvig, 1983).

A deposit guarantee scheme limits the degree to which problems inherent in a particular bank are transferred to other healthier banks, since it guarantees depositors compensation if their bank fails, so that they do not need to rush to the bank to recover their assets. This mechanism therefore reduces the likelihood of a chain reaction and contagion of the entire banking system.

However, deposit guarantee schemes are only one of the instruments intended to ensure financial stability. They are part of a broader financial safety net. There is a consensus that such a safety net should comprise deposit protection, prudential supervision and regulation, and a lender of last resort⁽¹⁾.

First of all, ex ante crisis prevention measures such as effective prudential supervision and a coherent regulatory framework should afford protection against bank failures.

The sector itself must also accept its responsibility and control the risks by rigorous internal risk management.

In regard to ex post measures to resolve a crisis, the central bank can extend the provision of liquidity for the banks when they face financing problems, if need be by resorting to unconventional measures as it did during the recent crisis. These can be viewed as the operations of a lender of last resort, in that most of the banks were no longer able to raise finance in the usual way on the interbank market. Finally, the fiscal authorities can intervene to restore the solvency of the banks by acquiring a share in their capital or by standing guarantor for their financial obligations. Unlike the explicit insurance offered by deposit guarantee schemes, these actions by central banks and authorities constitute an implicit insurance of intervention in a crisis: the action will be discretionary and will often benefit all creditors, and not just the depositors.

2. Core principles for an optimal deposit guarantee scheme

2.1 Advantages and disadvantages

Taking account of their objectives, deposit guarantee schemes have certain theoretical advantages and disadvantages. After discussing them, we shall examine the conditions which an effective guarantee scheme must fulfil in order to overcome the disadvantages as far as possible in practice. The authorities in fact have a choice of several regimes which differ in terms of coverage, funding and administrative rules (2).

ADVANTAGES

First, there are several advantages to be gained by protecting depositors' savings.

As a result of deposit protection, the financial wealth of households is largely safeguarded in times of crisis. That prevents the occurrence of decidedly negative wealth effects on private consumption, which could drive the real economy and the financial sector into a destructive spiral.

Moreover, individuals can more or less disregard the risk of failure when choosing their bank. That therefore reduces the customer's information costs, making it easy to seek out the institution offering the highest rates. That situation may increase competition between banks, though on average the banks should be able to reduce the amount of their deposit remuneration. In a regime where deposits

⁽¹⁾ Cf. in particular FSF (2001) and Schich (2008b). The lender of last resort can be defined as an institution, usually the central bank, which grants loans to the banking sector when all other means at its disposal for obtaining credit have been exhausted. According to the classical definition, the aim of the lender of last resort is to avoid unnecessary bank failures by enabling the banks to overcome their temporary liquidity problems by granting loans at an appropriate interest rate against the necessary collateral.

⁽²⁾ Cf. in particular Garcia (2000) and Demirgüç-Kunt et al. (2005).

are not guaranteed, savers in fact demand an additional risk premium which depends on the credit institution's – often difficult to estimate – risk of default.

Deposit guarantee schemes also offer a number of significant advantages for financial stability, primarily in comparison with implicit guarantees.

Unlike implicit guarantees which, by rescuing the financial institution, provide a "blank cheque" for all the creditors, shareholders and even managers, the protection offered by deposit guarantee schemes is confined to depositors. It is therefore in the interests of the uninsured parties to assess the bank's risk positions since, in the event of failure, they will not enjoy the same security as depositors. A deposit guarantee scheme may therefore encourage better market-based risk monitoring on the part of the players best placed to achieve that (institutional investors and shareholders).

Another advantage is the creation of a level playing field which eliminates the competitive disadvantage of small banks. Since they are not regarded as systemically important and their survival is not essential to the functioning of the economy, they may be at a disadvantage compared to systemically important banks when it comes to a rescue operation. During the crisis, it did in fact become apparent that a number of large banks received assistance on the basis of implicit principles such as "toobig-to-fail" or variants such as "too-interconnected-tofail" or "too-complex-to-fail". That may have given savers the impression that their savings were better protected in those large institutions. A deposit guarantee fund eliminates that misconception and ensures that deposits are guaranteed in all banks, so that the smaller ones do not need to offer higher rates in order to attract deposits.

Finally, since most depositors enjoy full protection, deposit guarantee schemes make it politically more acceptable for governments to decide to allow an institution to fail. They thus avoid being forced to rescue all institutions, even insolvent ones, via implicit guarantees so that depositors do not suffer losses. Apart from the considerable impact on the budget often involved in such implicit guarantees, they may lead to the maintenance of a weak financial system.

DISADVANTAGES

An important risk often associated with deposit guarantee schemes, but also with the lender of last resort and other implicit guarantees, is the risk of moral hazard. This concept refers to the changes in the behaviour of insured persons, causing them to take greater risks than they would

without insurance. Such behaviour could be adopted by both banks and depositors, knowing that there is the explicit or implicit certainty of government intervention at times of distress in the financial sector. When choosing their bank, depositors would no longer attach any importance to the soundness of the institution but would seek out the highest interest rates. Also, bankers would be tempted to make risky investments, on the assumption that neither they nor their customers would have to bear any losses. The provision of guarantees for savers and financial institutions may therefore have the opposite of the desired effect and result in a riskier financial system.

2.2 Core principles of the optimal system

Listing the advantages and disadvantages shows that the design of a deposit guarantee scheme entails a trade-off between the objectives, namely depositor protection and financial stability. Giving too much deposit protection increases the risk of moral hazard, whereas an inadequate level of protection undermines confidence in the system. It is therefore necessary to limit the risk of moral hazard without endangering the system's credibility. Moreover, the creation of the system must be considered in the broader context of the financial safety net of which it forms part, and in the international context. Coordination and harmonisation are key elements here.

CREDIBILITY

The deposit guarantee scheme must be credible in the eyes of savers. It cannot be effective unless the guarantees offer a sufficiently high level of cover to apply to the bulk of the deposits. Also, depositors must be convinced that, after a bank fails, the system will actually be able to repay their deposits within a reasonable period of time. If the fund is undercapitalised *ex ante* by the financial sector, and/or if the government has insufficient fiscal scope to finance intervention *ex post*, the system will lack credibility so that it would still be rational for depositors to start a bank run. An effective deposit guarantee scheme should also preferably be transparent, simple and publicised.

LIMITATION OF MORAL HAZARD

There are various ways of limiting moral hazard. In regard to coverage, it is possible to exclude some large creditors such as financial institutions and institutional investors. It will then be very much in the interests of those players to monitor the risk-taking behaviour of their bank (Gropp and Vesala, 2004). Moreover, unlike small depositors they are in the best position to do that.

Another possibility is the introduction of co-insurance, which limits the cover to a fixed percentage (e.g. 90%) of the amount of each individual deposit. That solution would help to encourage depositors to adopt a critical attitude when choosing their institution. However, it does have the disadvantage of causing all depositors to suffer a loss in the event of a failure, substantially increasing the risk of a bank run, as became apparent at the time of the crisis in the United Kingdom (Ondo-Ndong and Scialom, 2008). In 2009, Directive 2009/14/EC abolished the co-insurance option.

A third solution to the problem of moral hazard consists in financing the deposit insurance fund by a system of risk-based contributions. This entails methods of levying contributions from financial institutions according to their risk profile. The price tag attached to the risk will restrain the risk-taking behaviour of financial institutions. The drawback of this method is the difficulty of determining the risk profile of the institutions. Thus, balance sheet data are one possible basis, but they provide little indication of the future; market information is another possibility, but it is not always available and may be biased. Moreover, there are various types of risks, such as market risks, credit risks, operational risks and systemic risks, which are difficult to combine in a single figure. In that regard, the bank regulator seems the most appropriate information source.

Finally, the problem of moral hazard can be limited by imposing restrictions on the banks, e.g. in the form of liquidity and solvency requirements: that is the task of prudential regulation and supervision. In that regard, one form of regulation necessitates the other (Greenspan, 2001).

NATIONAL AND INTERNATIONAL COORDINATION

The above example shows that deposit guarantee schemes cannot be viewed separately from other arrangements for the prevention and resolution of crises forming part of the financial safety net, i.e. the prudential supervisory authority and regulator, and the lender of last resort. Deposit guarantee schemes are in general only activated after a bankruptcy, while the other elements of the safety net aim to avoid that.

It is essential for these institutions to exchange information readily and promptly so that, in a crisis, they can take swift, coordinated action (IADI, 2006). The elements of the financial safety net in fact interact in various ways. First, prudential regulation and supervision limit the moral hazard inherent in the deposit guarantee scheme and the function of lender of last resort. There are also

interactions between these last two elements. Thus, the deposit guarantee scheme resources may be preserved if the lender of last resort supports a struggling financial institution. Conversely, such measures may lead to an insolvent bank continuing in business, resulting in a constant decline in its capital as a percentage of its deposits (1), potentially encouraging a bank run. On the other hand, a quick failure favours prompt compensation by the guarantee fund. These examples show that uncoordinated intervention may endanger financial stability and thus entail high social costs.

The global character of the modern financial system creates additional problems. If an international financial institution gets into difficulty, numerous public authorities are involved. It is therefore vital to optimise the coordination and exchange of information between countries and between deposit guarantee schemes. However, during the crisis, it became apparent that national interests took precedence in the absence of instructions specifying what must be communicated and by whom. That led to great uncertainty for the customers of savings institutions, e.g. in the case of the Belgian branches of the Luxembourg company Kaupthing Bank Luxembourg S.A., itself a subsidiary of the failed Icelandic bank Kaupthing.

One of the problems that arises is the home/host issue. It concerns the division of powers between national authorities. In the EEA⁽²⁾ (which comprises the EU, Norway, Iceland and Liechtenstein), subsidiaries of foreign banks come under the guarantee fund of the country in which they are established (host control). Conversely, the deposits in branches⁽³⁾ of foreign banks are covered by the guarantee fund of the country where the bank has its head office (home control)⁽⁴⁾.

These rules are not very transparent for depositors (5). They make it difficult for them to choose an institution since they need to know its legal form and origin, as well as the characteristics and reliability of the associated deposit guarantee scheme.

- (1) Schich (2008a) states in this connection that in exchange for the loan the lender of last resort takes good collateral from the bank, constantly reducing the good quality assets available to depositors and other creditors. However, that statement was less relevant during the recent crisis, since the collateral accepted for the provision of liquidity by the central banks was extended to include lower quality instruments, subject to deduction of a certain percentage (haircut).
- (2) European Economic Area. For banks not in the EEA, Member States are free to devise regulations. In Belgium, all those banks (branches or subsidiaries) come under the Belgian guarantee fund.
- (3) Any subsidiary of a foreign bank that is established in Belgium is regarded as a firm incorporated under Belgian law that is legally independent from the parent company, while a bank branch is not a separate legal body; it is just a normal decentralised structure of the foreign company.
- (4) However, branches of foreign banks may opt for additional participation in the guarantee fund of the country where they are established, if that offers higher coverage than the guarantee scheme of their country of origin.
- (5) Thus, it eventually emerged that the deposits of Belgian customers of Kaupthing were covered by the Luxembourg guarantee fund, while the deposits of customers of Kaupthing in the Netherlands were covered by the Icelandic guarantee fund, since the bank operated there as a branch of the Icelandic parent institution.

From the banks' point of view, the differences between guarantee schemes may distort competition. Thus, the banks operating under a favourable system – in regard to both contributions and coverage - can attract more deposits at lower cost. The parent institutions can also convert their branches into subsidiaries (or vice versa), to shop for the best regulation offering the most attractive guarantee at the lowest price. Conversion of a branch into a subsidiary has the effect that its deposits are immediately covered by the guarantee fund of the country in which it operates, even though it has never contributed to that fund in the past. The differences may also give rise to abuse. Banks which take high risks may take advantage of a lack of transparency and thus attract deposits via branches based in countries offering a high guarantee. Against that backdrop, they may benefit from the lack of information for local depositors who might wrongly assume that their deposits come under the favourable local guarantee system. Moreover, the policy of the parent bank is not supervised by the regulatory authorities of the country in which the branch is established. That situation may lead to inadequate information on the risk-taking behaviour of the branch.

Clear rules or harmonised systems – particularly in regard to the level of coverage and funding – are therefore necessary to prevent differences between national guarantee schemes from giving rise to distortions of competition, abuses and uncertainty, and hampering financial integration (Trichet, 2008). International cooperation is necessary here. Pending harmonisation of the national systems within the EU, or even the creation of a pan-European deposit guarantee scheme, some countries have already confirmed their collaboration in a Memorandum of Understanding (MoU) which may be concluded at bilateral or multilateral level. That cooperation concerns the exchange of information and the treatment of applications for compensation. MoUs are particularly important where branches opt for complementary participation in the guarantee scheme of the country where they are established. So far, the Belgian deposit guarantee scheme has concluded two MoUs, one with the British system (Financial Services Compensation Scheme) and the other with the Dutch system managed by the Nederlandsche Bank.

3. Characteristics⁽¹⁾ of the system in Belgium

3.1 Coverage

3.1.1 Conditions

In accordance with the European Directives 94/19 and 97/9, two schemes have been set up in Belgium: a deposit guarantee scheme and a financial instrument protection system.

In Belgium, the deposit guarantee currently amounts to € 100,000 per depositor and per financial institution. The decision to raise the previous ceiling of € 20,000 was taken by the federal government, by a Royal Decree published in the *Moniteur belge* of 17 November 2008, in the wake of the financial crisis. As in other European countries, confidence in the financial system was shaken and the first signs of deposit withdrawal were appearing. The aim was to curb the loss of confidence.

Deposit protection applies to all credit balances denominated in an EEA currency and held by natural persons, associations and small or medium-sized firms (2) in the form of current accounts, term accounts and savings accounts with a financial institution. It also covers funds on an investor's account and debt instruments issued by credit institutions (such as savings notes and bonds) if they are registered, dematerialised or held in a securities account. Bearer savings notes are not protected.

The protection of life insurance contracts (3) only covers class 21 products offering a guaranteed return, provided they are bought from a company which has elected to join the system (membership is currently voluntary). The reason for extending coverage to these products is that, despite taking the form of an insurance contract, these products are intended to attract the same group of depositors as those interested in conventional savings products offered by credit institutions (Debremaeker, 2009). As soon as an insurance undertaking joins the system, its customers enjoy a guarantee equal to the redemption value of their life insurance contracts on the day before the date on which the insurance undertaking fails, subject to a maximum of € 100,000.

The protection of financial instruments applies to all securities (shares, bonds, UCIs) issued by a third party and held on behalf of customers with a credit institution or investment firm, if that institution is unable to deliver or return them.

⁽¹⁾ Only the most important characteristics of the Belgian guarantee scheme are considered here. For more detailed information, we refer to the most recent activity report of the Deposit and Financial Instrument Protection Fund, a public institution managing the scheme.

⁽²⁾ Firms allowed to draw up an abridged balance sheet are covered by the protection system guarantee. Large and medium-sized firms which have to file a full-format balance sheet are therefore excluded. In practice, these are firms which either have an annual average number of employees in excess of 100, or which exceed more than one of the following criteria: a balance sheet total of €3,650,000, an annual turnover (excluding VAT) of €7,300,000, and an average number of employees totalling 50 persons.

⁽³⁾ This protection was primarily a response by the Belgian government to the problems facing Ethias in the context of the financial crisis. It is now also an item on the European agenda. In 2008, the European Commission conducted a consultation on this subject, and will draw up a proposal for a Directive on protection for insurance products in 2011.

Intervention by the Protection Fund will therefore be necessary only in exceptional cases in which the securities held by the failed institution have been returned to their owners, but some owners have not recovered the whole of their securities. The amount of the guarantee covering financial instruments has been kept at $\leq 20,000^{(1)}$.

Since the protection is intended mainly for ordinary savers, some categories – generally referred to as professional players – do not qualify for intervention. This applies to governments and government agencies, financial institutions, institutional investors, large firms and persons connected in various ways with the failed institution or undertaking (executive and supervisory directors, associate companies) or persons whose behaviour has contributed to the failure.

3.1.2 Effective coverage

Various statistics are used to try to estimate the extent to which the bank deposits of Belgian households and firms are covered by the deposit guarantee. Thus, the data supplied by Febelfin – the Belgian financial sector federation – on the number of accounts held by households and firms with banks established in Belgium were combined with the statistics on the amounts of deposits held with Belgian banks, compiled by the Bank in drawing up Belgium's financial accounts. These two sources permit an estimate of the average amount of current account deposits, term deposits and savings deposits held by resident firms and households.

Households' current account deposits total an average of € 3,240, if the analysis is confined to those with a credit balance. The number of accounts comes to 11 million, representing an average of 1.1 accounts per person.

Households' term deposits have an average balance of almost €25,000. However, the number of accounts is relatively small at just under 900,000. In other words, only one in ten residents has a term account.

Finally, households hold on average somewhat more than € 10,000 in a regulated savings account. There are over 18 million accounts of this type, a figure well in excess of the Belgian population, indicating that some savers hold more than one savings account. Apart from 'shopping around', one reason for opening multiple savings accounts is that savers want to avoid exceeding the maximum limit on interest exempt from withholding tax

The table below offers a brief estimate of the sums involved. Various factors make it impossible to refine the results. First, the financial accounts break down the data into euros and other currencies: the other EEA currencies cannot be specifically identified. The figures presented here therefore take no account of deposits held in EEA currencies other than the euro. Also, the data include euro deposits held by individuals with branches of foreign banks for which the guarantee is provided by another Member State.

Moreover, these average values give no idea of the breakdown of the balances of the deposits among savers. The Eurosystem survey of the financial behaviour of households, first conducted in Belgium in the summer of 2010, should provide totally new information on the breakdown of the real and financial assets of savers.

TABLE 1 EURO DEPOSITS HELD BY HOUSEHOLDS WITH BANKS ESTABLISHED IN BELGIUM

	Total amount of deposits (1)	Number of accounts (2)	Average amount per account	Average number of accounts per person	Average amount of deposits per person
	(millions of euro)	(thousands of units)	(euro)	(units)	(euro)
Current accounts (3)	36,907	11,390	3,240	1.1	3,415
Term accounts	21,110	861	24,514	0.1	1,953
Regulated savings accounts	186,294	18,352	10,151	1.7	17,238
Total	244,311	30,604	7,983	2.8	22,606

Sources: DGSEI, Febelfin, NBB.

⁽¹⁾ In July 2010, the European Commission however also put forward a proposal for a new Directive concerning compensation schemes for investors whereby the coverage would be increased to € 50.000.

⁽¹⁾ As at 30 June 2010.

⁽²⁾ As at 31 December 2009

⁽³⁾ With a credit balance.

Based on a survey of 2,000 households, the findings can be extrapolated to the population as a whole, but will not be available before the end of 2011.

The averages thus calculated, though imperfect, are nevertheless valuable for estimating the appropriateness of the ceiling on the deposit guarantee scheme applicable in Belgium. For ease of analysis, we shall concentrate on the assets of individuals, ignoring two categories of financial instruments: any savings notes and other fixed-income securities issued by the failed institution which, if they are not bearer instruments, are normally added to the saver's deposits, and the outstanding balance due on any loans contracted with the failed institution, which is deducted from the amount of the deposits.

On average, Belgian residents hold about €22,500 each in bank deposits, either held with one bank or spread over a number of banks, in 1.1 current accounts, 1.7 savings accounts and 0.1 term accounts, i.e. an average of 2.8 accounts. Of course, household deposits are not evenly distributed. Some people hold less than €22,500 in bank deposits, or even do not have a bank account, while others have accounts with a much bigger balance.

Taking account of these inequalities, a fundamental question is whether or not the distribution of the amounts of the deposits is symmetrical around the average. If it is, the median deposit per person would be equivalent to the average deposit, namely € 22,500. In that case, around 50% of the population did not enjoy full protection against a bank failure when the old ceiling applied. However, in practice it seems that, in so far as they reflect the distribution of total assets, deposits display an asymmetric pattern. In particular, a minority of persons

apparently hold substantial deposits, driving up the average. In that case, the median deposit is less than the average of €22,500. That means that more than 50% of people already enjoyed full protection of their deposits before the ceiling was increased. The opposite side of the coin is that a proportion of savers – under 50%, but presumably a significant percentage – nevertheless held total bank deposits of more than €20,000 at that time. From now on they enjoy increased protection, or even full protection in some cases, with an intervention ceiling of €100,000.

These assumptions are consistent with the European Commission's estimate, which – on the basis of the coverage rate calculated in the Member States offering comparable protection – considers that 67% of eligible deposits in Belgium were completely covered when the ceiling was still set at \leq 20,000. For the new arrangement, the Commission estimated that in July 2010 about 95% of the eligible deposits were completely covered by a ceiling of \leq 100,000 (EC, 2010d).

Ultimately, only the minority of savers whose total bank deposits exceed the current ceiling will potentially incur losses if a bank fails, and then only if that ceiling is reached in the case of one and the same institution. However, some savers are likely to spread their deposits over accounts with a number of different institutions.

Where businesses are concerned, current accounts (with a credit balance) have a total balance averaging around € 50,000 each. There are almost 1 million such accounts, representing 3.2 accounts per firm. Each firm therefore has an average of € 157,000 on deposit in current accounts.

TABLE 2 EURO DEPOSITS OF FIRMS(1) HELD WITH BANKS ESTABLISHED IN BELGIUM

	Total amount of deposits (2) (millions of €)	Number of accounts (3) (thousands of units)	Average amount per account (€)	Average number of accounts per firm (units)	Average amount of deposits per firm (€)
Current accounts (4)	46,943	945	49,672	3.2	156,920
Term accounts	18,733	32	581,130	0.1	62,619
Savings accounts	12,815	375	34,180	1.3	42,837
Total	78,490	1,352	58,046	4.5	262,376

Sources: Febelfin, NBB.

⁽¹⁾ Based on the number of non-financial firms which deposit an annual account at the Central Balance Sheet Office in 2008.

⁽²⁾ As at 30 June 2010.

⁽³⁾ As at 31 December 2009.

⁽⁴⁾ With a credit balance.

The term deposits of firms have an average balance of around \in 580,000. As in the case of households, they are very few in number: only one in ten firms has a term account. Per firm, the average balance on term accounts comes to \in 63,000.

Finally, savings accounts held by firms contain on average € 34,000. There are around 375,000 of these accounts, or 1.3 per firm. Consequently, each firm has an average of € 43,000 on a savings account.

With the provisos expressed above, each firm based in Belgium has bank deposits with one or more resident credit institutions containing a total equivalent to around € 262,000, divided among 4.5 accounts, namely 3.2 current accounts, 0.1 term accounts and 1.3 savings accounts. As in the case of households, the sums recorded are most likely divided unevenly among firms according to their size and sector of activity. In particular, it can be assumed that the deposits of small and medium-sized firms are in most cases smaller on average, while those of large firms – which represent only a small proportion of non-financial corporations (5.9 % in 2008) – are much larger.

At present, only the deposits of small and mediumsized firms which have filed accounts in the abbreviated format are covered by the Belgian deposit guarantee scheme. In the absence of data on the breakdown of the amounts of deposits by firm size, it is impossible to state exactly what amounts are guaranteed by the current deposit protection system and what proportion of SME deposits are covered. Anyway, in the future, the distinction by size of the firms will no longer be relevant as the European Commission proposes that all firms regardless of their size, will be covered by the deposit guarantee scheme.

Firms are more likely than individuals to use the services of several banks, making them less vulnerable to the failure of one individual bank. Nevertheless, the guarantee scheme will cover their assets to a lesser degree than those of households. That is certainly true in the case of large firms. Moral hazard will be less of a factor in their case, since losses remain possible. They will therefore have to take account of the risk profile of their banks. For individuals and probably SMEs, on the other hand, the coverage is virtually complete and the profile of the chosen bank will probably be disregarded.

3.2 Financing

The guarantee scheme covering deposits and financial instruments is financed ex ante by members' contributions.

3.2.1 Members

Membership of the protection scheme is compulsory for credit institutions, investment firms and stockbroking firms incorporated under Belgian law, and is a precondition for obtaining the approval of the Banking, Finance and Insurance Commission (CBFA). Coverage is compulsory not only for the assets of Belgian banks in Belgium but also for the assets held by their branches in the EEA.

Branches of institutions governed by the law of another EEA Member State active in Belgium come under the protection scheme established in their country of origin, in accordance with the European Directives.

Branches of credit institutions and investment firms established in Belgium and governed by the law of a country which is not a member of the EEA have to join the protection scheme if their liabilities are not covered by an equivalent protection scheme in their country of origin.

In contrast to the above institutions, which are obliged to take part in the system of protection for deposits and financial instruments, insurance companies participate on a voluntary basis in the guarantee scheme covering insurance contracts.

3.2.2 Funds

The financing of the liabilities relating to deposit protection is divided in Belgium between two funds: the Protection Fund for Deposits and Financial Instruments and the Special Protection Fund for Deposits and Life Insurance.

The Protection Fund for Deposits and Financial Instruments (hereinafter: the Protection Fund) is based on the European Union requirements concerning the protection of deposits and savings notes, and is responsible for financing the first € 50,000 tranche of each deposit and the whole of the intervention in the case of financial instruments, the latter still being capped at € 20,000. The Protection Fund is an autonomous public institution with its own legal personality. It is administered by a board of directors comprising equal numbers of representatives of the financial sector and the government.

Any intervention concerning the balance of deposits in excess of €50,000 is the responsibility of the Special Protection Fund for Deposits and Life Insurance (hereinafter: the Special Fund), newly formed in 2008 following the extension of the guarantee. This internal financing system is neutral for depositors, who can claim the

guarantee of € 100,000 under any circumstances. As its name indicates, the Special Protection Fund for Deposits and Life Insurance also administers the new guarantee covering class 21 life insurance products. That guarantee is totally independent of the bank deposit guarantee, and is administered entirely and exclusively by the Special Fund. The Special Fund is run by the Caisse des dépôts et consignations, which comes under FPS Finance.

With effect from 1 January 2011, however, this system will undergo fundamental change. From that date, the Special Fund will provide protection for all life insurance products with guaranteed return coming under class 21, for which participation will be compulsory, up to the maximum of €100,000. It will take on the protection of deposits up to that same ceiling once the scope for intervention by the Protection Fund has been exhausted.

3.2.3 Contributions

Up to 31 December 2010, credit institutions and investment firms are in principle required to make a contribution which is divided into four parts:

- in regard to deposits eligible for compensation:
 - a contribution of 0.175‰ payable to the Protection Fund, and
 - a contribution of 0.31% payable to the Special Fund;
- in regard to the protection of financial instruments:
 - a contribution of 0.7 % (capped at € 154,000) of the gross profits for the previous year excluding interest income (for the credit institutions) or the turnover (for stockbroking firms) payable to the Protection Fund, and
 - a contribution of 0.01‰ (capped at € 455,000) of the outstanding total of financial instruments held for the account of third parties, also payable to the Protection Fund.

The insurance companies wishing to join the guarantee system for life insurances must also pay financial contributions to the Special Fund:

- a one-off initial contribution of 0.25 % and
- an annual contribution of 0.50 ‰.

These two contributions are calculated on the total inventoried reserves of the protected life insurance contracts.

It was necessary to step up the system's financing taking into account the increase of the guarantees. At the end of 2009, the intervention resources of the Protection Fund came to \leq 879 million. Taking account of the \leq 244 billion held on household bank accounts at the end of June 2010, we can estimate that around 0.36% of the guaranteed amounts are covered by the current financial

resources of the Protection Fund, even disregarding the deposits covered for SMEs.

Therefore, as foreseen in the Programme Law of 23 December 2009, member banks and investment firms will pay in two equal instalments, one in December 2010 and the other in January 2011, a membership fee of 0.10% of the total amount of their deposits as at 30 September 2010. Their annual contribution to the Special Fund will also be increased, from 2011, to 0.15% of their eligible deposits valued as at 30 September in the year preceding the payment.

Similarly, insurance companies will be obliged to join the Special Fund and pay an annual contribution equivalent to 0.15% of the value of the protected contracts (class 21 products) as at 30 September in the previous year.

3.3 Payout delay

Under the current system, payouts must be made within a maximum of three months following the date of default. That period may be extended three times by a maximum of 3 months at a time, on the decision of the CBFA and in exceptional circumstances.

4. Recommendations issued by the European Commission since the crisis and challenges ahead

Since 1994, national deposit guarantee schemes in the EU have been addressed by a European Directive (EC, 1994). Up until the crisis, the EU had opted for limited harmonisation, pursuant to Directive 94/19/EC on deposit guarantee schemes, by essentially only setting a minimum level of the guarantee (€ 20,000⁽¹⁾). Consequently, the national authorities were free to decide the form taken by their deposit guarantee scheme, taking account of their financial structure and the scope available. That led to significant fragmentation since there are currently around forty (2) deposit guarantee schemes in the EU, with differing coverage, financing and administrative rules.

⁽¹⁾ In 1994, the Directive set a transitional implementation period expiring on 31 December 1999, and made provision for the possibility of reviewing the amount of the coverage every five years from 2005 onwards. Although the Commission conducted an analysis on the subject in 2006, the amount of coverage remained unchanged until 2009 at EU level.

⁽²⁾ In some countries, multiple systems were devised in response to the diversity of the financial landscape (e.g. commercial banks versus savings banks in Germany)

4.1 Directive 2009/14/EC as a rapid response to the crisis

The financial crisis of 2007-2008 demonstrated that some deposit guarantee schemes in the EU were unable to preserve depositors' confidence and financial stability, as is evident from the bank run on Northern Rock at the start of the crisis in September 2007 and the increased nervousness among depositors in general. The guarantees offered proved insufficient in a good many cases. Moreover, the differences between guarantee schemes sometimes led to deposits being transferred to institutions covered by a more favourable deposit guarantee scheme, causing serious disruption for both banks and depositors and negating the benefits of the single European market.

In October 2008, on the initiative of the European finance ministers, the European Commission produced a rapid response to the crisis in proposing a new Directive 2009/14/EC. However, that Directive⁽¹⁾, in force since 11 March 2009, was an emergency measure intended mainly to restore the confidence of depositors, and dealt only with issues that could be changed relatively quickly:

- the immediate increase in the minimum guarantee from € 20,000 to € 50,000 before July 2009 and the introduction of a fixed guaranteed amount of € 100,000 in all Member States by the end of 2010;
- the reduction in the payout delay by no later than the end of 2010 – from three months to 20 working days, with a possible extension of no more than 10 working days under exceptional circumstances;
- the abolition of the co-insurance clauses which cause depositors to incur a loss if their financial institution fails;
- the establishment of a duty on financial institutions to provide information so that depositors know whether, and to what extent, their deposits are covered by a guarantee scheme.

However, in the long run, this Directive explicitly aimed at in-depth review of the deposit guarantee schemes once an impact analysis has been conducted. It also makes provision for examining in that connection whether the new coverage set at € 100,000 is optimal.

4.2 Proposal of 12 July 2010 for a new European Directive on deposit guarantee schemes

On 12 July 2010, after having conducted an impact analysis and consulted various interest groups (consumers, banks, deposit guarantee funds, Member States, central banks⁽²⁾), the European Commission published its proposal for new rules on deposit guarantee schemes

(EC, 2010c)⁽³⁾. Note that before that proposal becomes a Directive, it has to be approved, with or without amendments, by the European Parliament and the Council.

Apart from offering better coverage for consumers, the Commission proposal essentially provides for harmonisation of the schemes in regard to both the guarantees offered and their financing, in order to create a level playing field between the Member States and thus promote financial integration in the EU. The Commission also wants to enhance the effectiveness and credibility of the schemes by simplifying their administrative rules and guaranteeing them sounder financing, which would also help to restrain any risk-taking behaviour by financial institutions.

In view of the complexity of the schemes in terms of both their economic impact and their legal ramifications, the Commission proposal provides for a very gradual transition for some measures, while others will enter into force immediately from 2013 onwards. The new rules in the proposal for a Directive apply to all banks established in the EU, and can be summarised as follows.

4.2.1 Unified coverage and scope

The proposal reiterates the increase in coverage to a fixed amount of \leq 100,000 in all Member States by the end of 2010.

In many cases, the introduction of this new uniform level offers consumers clearer, more effective protection and will probably contribute to the further integration of banking activities in the EU. At present, the coverage still varies widely from one Member State to another, ranging from a minimum of \leq 50,000 in some East European countries to \leq 103,000 in Italy.

In comparison with the coverage applicable before the financial crisis, the number of deposits with total cover in the EU should increase from 89 to 95 % of eligible deposits, while the amount covered will rise from 61 to 72 % of these deposits. There would probably be little advantage in higher coverage: according to the Commission, coverage of € 200,000 would boost the number of deposits with full cover by less than 2 %, and would not justify the costs (financing) and disadvantages (moral hazard) entailed in such an increase (EC, 2010d).

Directive 2009/14/EC of the European Parliament and of the Council amending Directive 94/19/EC on deposit-guarantee schemes as regards the coverage level and the payout delay (EC, 2009b).

⁽²⁾ For the Eurosystem's position, cf. ECB (2009).

⁽³⁾ It forms part of a broader set of reforms which are also aimed at investment protection and the protection of insurance products.

The cover would apply to all individuals, all firms and all currencies. It excludes deposits by local authorities and financial institutions, debt certificates and structured investment products. For simplicity, large firms would no longer be excluded, as the costs and disadvantages associated with the identification of large firms would cause significant delays in payouts to depositors.

Although the guarantee figure of € 100,000 is a maximum, Member States may decide to provide temporary cover in excess of that limit in the case of deposits resulting from real estate transactions or specific events (such as retirement), provided that this provision remains valid for no longer than twelve months.

4.2.2 Faster payouts

According to the proposal, the payout delay should be cut to seven working days. That is considerably shorter than the payout delays seen during the crisis, which sometimes amounted to several months (as in the case of Kaupthing). A number of pre-conditions are necessary for this speedier payout.

First, the prudential supervision authorities would need to inform the deposit guarantee scheme operators promptly if a bank is likely to fail. Next, the guarantee fund would have to be able to identify quickly the deposits to be repaid on the basis of the information held by the credit institutions. More particularly, the latter must be able to supply information on the total amount of the deposits held by a depositor ("single customer view"). To guarantee this prompt payout in the event of an international institution's failure, it is specified that the deposit guarantee scheme of the country in which the bank operates (host) should act as the contact point.

By further reducing the payout delay, the Commission aims to augment the credibility of the guarantee schemes and prevent depositors' financial resources from being blocked for too long, as that would force them to cut back their consumption. However, a prompt payout also entails risks, particularly the risk of erroneous payouts, imposing particularly heavy demands on the administration of both credit institutions and guarantee funds.

4.2.3 Risk-weighted financing in a new, credible financing model

During the crisis, it became apparent that a number of systems had inadequate funding to cope with the failure of a large bank. Thus, the Icelandic guarantee fund did not have sufficient resources to recompense the depositors of the foreign branches of Landsbanki (better

known as Icesave) and Kaupthing Bank in Germany, the Netherlands and the United Kingdom.

Up to now, the Member States have been free to organise the financing of the guarantee funds, which is why there are major differences between funds. However, the general principle is that the final cost of intervention is borne by the credit institutions. Traditionally, a distinction is made between ex ante and ex post financing. Under the ex ante system, the resources are paid into the fund in advance on a regular basis by the financial sector, while in the ex post system the funds do not ask for the necessary resources until a claim arises, and are paid by either the financial sector or by the government which advances the amounts for the financial sector. There are only six countries where contributions are received solely ex post (Austria, Italy, Luxembourg, the Netherlands, Slovenia and the United Kingdom). In most schemes, the contributions represent a fixed percentage of the amount of the eligible deposits. Only eight schemes weight the contributions according to the risks (1). Banks with a higher risk profile have to pay more, and that helps to reduce the moral hazard in the financial sector.

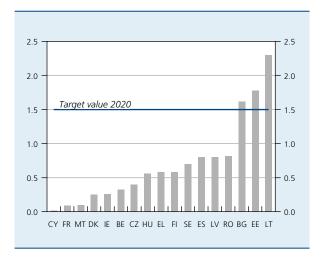
The financing of the funds is crucial to the credibility of the deposit guarantee schemes. If a fund does not have sufficient resources, it does not perform its role since depositors will consider it rational to start a bank run. However, the optimum level of funding is hard to determine, as the contributions may be viewed as a tax on the financial sector, depressing its profitability. Since the funds have to manage the sums received in a very conservative way, the yield is also low. Ideally, the resources should reflect the probability of failure on the part of a country's financial institutions. Thus, if the funding level is high, that may also suggest that the authorities are taking account of a substantial default risk, which may dent depositors' confidence. In 2007, the resources of ex ante systems in the EU ranged from 0.01 % (Cyprus) to 2.3% (Lithuania) of eligible deposits. In Belgium, according to the Commission's figures, the funding ratio came to 0.33 %. Bearing in mind the lessons of the crisis, the Commission decided, in its proposal, to step up the financing of deposit guarantee schemes and to make the financial sector carry responsibility by introducing risk-based funding contributions. These provisions open the way to the establishment of a harmonised funding system, an essential pre-condition for the possible creation of a pan-European guarantee fund.

The proposal provides for improved financing of deposit quarantee schemes. First, by 2020, the *ex ante* resources

(1) For a description of these systems, cf. EC (2008).

CHART 1 FUNDING RATIO (1) OF DEPOSIT GUARANTEE SCHEMES IN THE EU (2)

(percentages, 2007)



Source: EC.

- (1) Ex ante resources as a percentage of the total deposits eligible for the quarantee.
- (2) Not available for countries without ex ante financing (Austria, Italy, Luxembourg, Netherlands, Slovenia and United Kingdom) or for Germany, Poland, Portugal and Slovakia.

are to represent 1.5 % of eligible deposits, implying a significant increase in funding levels. If the *ex ante* resources are insufficient to cater for the reimbursement of depositors, the guarantee funds will be able to turn to other sources of finance. Those additional sources are made up as follows:

- ex post resources equal to 0.5 % of eligible deposits, so that they make up a maximum of 25 % of the resources contributed by the financial sector;
- loans by other EU guarantee funds (mutual borrowing facility), amounting to a maximum of 0.5% of the eligible deposits of the borrower system;
- alternative funding arrangements.

In contrast to previous practices, based on a fixed percentage of deposits, the *ex ante* resources would also vary partly according to the risk profile of the credit institutions. That risk profile would be based on eight indicators identifying the main risk areas which concern the capital base, asset quality, profitability and liquidity (1). In order to give credit institutions a strong incentive to conduct internal risk management, the banks presenting the highest risks would have to contribute around three times as much as those presenting the lowest risks (2).

Since intervention by guarantee funds in the EU has tended to be an exceptional move, even during the recent crisis, it is not possible to establish whether their financing is adequate on the basis of the way in which bank failures

have been handled. The proposal therefore recommends regular stress testing to determine the ability of credit institutions to honour their commitments promptly during a crisis.

4.2.4 Simplification and transparency

By harmonisation and restrictions on exceptions, the Commission aims to simplify the regulations overall. The combined deposits held by a customer with one financial institution in the EU are guaranteed up to € 100,000, and – according to the proposal – the customer must have access to the guaranteed funds within seven days of the date of failure. These rules give depositors a clearer view of the operation of the system.

In its proposal, the Commission also abolishes the convoluted rules that complicated compensation without offering any real advantages. Thus, the provision allowing net payment – i.e. after deducting account holders' debt to a bank from their savings – would be abolished. Moreover, depositors no longer need to complete any formalities if a bank fails; the payout is effected automatically by the national deposit guarantee scheme. Depositors of a branch of a cross-border bank would also be reimbursed by the guarantee fund of the country where that branch is established (host fund). However, that is a purely administrative procedure; in the end, the amounts paid come from the fund of the country of origin.

The proposal also obliges financial institutions to inform depositors of the guarantees which they enjoy, both on creation of a deposit and on the account statements. Also, the deposit guarantee scheme must be transparent and help to strengthen the system's credibility by publishing specific information on the guarantees and how they are financed.

4.3 Consequences and challenges

In general, the Commission's proposal for a Directive largely takes account of the core principles concerning an optimal system design described in section 2.2 of this article. The proposal offers depositors better and more credible protection. Regardless of which bank savers choose in the EU, their total deposits are covered by a

⁽¹⁾ Defining the risk profile is a complex procedure surrounded by great uncertainty. Every method has both advantages and disadvantages. The Commission opted for a method based on the balance sheet data and comprising several indicators. For a description of the various models taken into account in calculating the risk-based contributions, see EC (2009a).

⁽²⁾ The risk-based contributions distinguish between financial institutions according to their relative risk profile (in comparison with other banks). It is therefore more difficult to deal with systemic risks, as an increase in the systemic risk will not necessarily result in an increase in the contribution from a particular bank, provided the latter's relative risk position remains unchanged.

guarantee of € 100,000 per institution and they are to have access to those deposits within seven days on the basis of increased financing. That enhanced credibility reduces the risk of a bank run. Apart from the advantages which deposit guarantee schemes already presented in relation to implicit guarantees intended to safeguard financial stability, the proposal takes particular account of moral hazard or the risk-taking that the guarantees could encourage. Despite the introduction of risk-based financing, prudential supervision and regulation, however, still has a vital role to play in limiting the risks because, as a result of the almost total coverage of deposits, savers are likely to respond faster to a rise in interest rates without paying attention to the risk profile of their chosen institution. Finally, the proposal also opens the way to the creation of a level playing field in the EU, so that banks are no longer confronted by distortions of competition resulting from the differences between the national guarantee schemes, and that will encourage further financial integration.

The impact of the new Directive, if adopted, and its implications must also be viewed in perspective against the broader range of measures designed to increase the resilience of the financial system. Apart from the strengthening of the deposit guarantee schemes, the prudential framework in the EU has also been modified in two ways: first, by the establishment of a new supervision set-up comprising three European Supervisory Authorities (ESAs)(1) and a European Systemic Risk Board (ESRB), and second by a proposal to tighten up banking regulations as regards capital and liquidity requirements (Basel III accords (2)). In addition, various groups of experts (3) are discussing the introduction of a tax on the financial sector, and more specifically on systemic too-big-to-fail institutions, or on financial transactions. Caution is vital here. The consequences of financial regulations are often complex. Among other things, account must be taken of the interactions between the various measures. Thus, the improved coverage offered by the guarantee fund cannot be viewed separately from tighter prudential control. The measures taken should also preferably be coordinated on an international scale so that they do not lead to competitive advantages or disadvantages which could distort capital movements. Finally, excessively strict regulation – e.g. the introduction of levies which would also concern deposit guarantee schemes – could affect the financial sector's profitability and encourage "shadow banking" activities or innovations which circumvent the regulations, thus threatening financial stability. It is therefore important to consider the cumulative effects of the reforms in the financial sector as they are not necessarily equal to the sum of the individual effects.

The proposal for a new Directive is not an end in itself. First, the Commission proposes that the new rules should be gradually phased in. Second, the Commission will assess the impact of the measures and the necessary efforts on the basis of interim reports, and consider whether it is appropriate to launch longer-term projects.

A PAN-EUROPEAN GUARANTEE FUND

The creation of a pan-European guarantee fund is just such a project. The proposal states that the Commission will submit a report on the feasibility of that project by the end of 2014.

According to the Commission, such a fund could cut the administrative costs by around € 40 million per annum and would permit improved management of bank failures (EC, 2010d), as a single failure would have less impact on a European fund than on a national fund.

However, it is complicated to set up a pan-European fund, especially in view of the legal aspects inherent in its financing. The introduction of such a system first requires full harmonisation of the national systems. The proposal for a new Directive could be viewed as a first step towards a pan-European scheme, as it harmonises the way the schemes work; it also stipulates that funding must amount to 1.5 % of eligible deposits and that the funds can make use of mutual borrowing facilities. Such a system would also be a logical development, taking account of the creation of a pan-European structure for prudential supervision.

DEPOSIT GUARANTEE SCHEMES VERSUS BANK RESOLUTION SYSTEMS

The operation of the deposit guarantee scheme must also be viewed, as described above, in the context of the package of measures intended to boost the resilience of the financial system. Special attention should focus on bank resolution systems (i.e. organising an orderly failure), aimed at the continuity of banking services so that depositors retain access to their deposits, e.g. by their transfer to another – sound – bank. A proposal for European legislation on bank resolution funds is in preparation (EC, 2010a). The literature often refers to prompt corrective action, namely the opportunity for supervisory authorities, central banks and public authorities to intervene in

⁽¹⁾ This concerns the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority (EIOPA) and the European Securities and Markets Authority (ESMA). The new European supervisory authority will be responsible for the supervision of deposit guarantee schemes and their mutual coordination. It will also be required to communicate information on the risk profile of financial institutions.

⁽²⁾ BIS (2010).

⁽³⁾ See, for example, EC (2010b) and IMF (2010).

the management of a credit institution before it actually becomes insolvent. Such measures are an alternative to deposit guarantee schemes and should be balanced against each other.

In a number of countries, deposit guarantee schemes also present the characteristics of bank resolution systems. In the United States, Canada and South Korea, in particular, guarantee funds can intervene in the management of banks, according to strict rules, and in extreme situations they can even take over the management of such institutions and proceed to repay or transfer deposits. However, such wide powers whereby these funds may also perform a prudential supervision role necessitate a proportionate increase in their resources. Early preventive measures do not always avoid the subsequent declaration of failure and the need to repay the deposits. It would not be in the public interest if the cost of transferring the deposits were to exceed the cost of repaying the depositors.

Conclusion

During the recent financial crisis, the deposit guarantee scheme in Belgium – as in other European

countries – played a role in preventing bank runs and restoring confidence: to that end, the intervention ceilings were raised substantially and the scope of the scheme was extended to include certain life insurance policies. Finally, the expansion of the system's coverage had to be financed by a sharp increase in the contributions from financial institutions. First of all, that measure had a positive impact on the budget; secondly, increased contributions may also boost the credibility of the deposit guarantee system.

A recent European proposes further ambitious reforms. Besides a better consumer protection, the European deposit guarantee schemes would be largely harmonised, thus also promoting European financial integration. Risk-weighted financing of the schemes should counteract moral hazard, benefiting financial stability. However, this proposal has yet to be approved by the European Parliament and the Council. Its impact ought to be assessed in the light of the broader package of measures aimed at making the financial system more resilient, such as the new prudential supervision structure, the Basel III proposal for stricter capital and liquidity requirements, and the possible new levies on the financial sector.

Bibliography

BIS (2010), Group of Governors and Heads of Supervision announces higher global minimum capital standards, Press release, 35/2010, 12 September.

EC (1994), Directive 94/19/EC of the European Parliament and of the Council on deposit-guarantee schemes, 30 May.

EC (2008), Report on risk-based contributions in EU deposit quarantee schemes: Current practices.

EC (2009a), Report on possible models for risk-based contributions to EU deposit guarantee schemes.

EC (2009b), Directive 2009/14/EC of the European Parliament and of the Council amending Directive 94/19/EC on deposit-quarantee schemes as regards the coverage level and the payout delay, 11 March.

EC (2010a), Bank resolution funds, COM(2010)254, 26 May.

EC (2010b), Innovative financing at a global level, Commission Staff Working Document, SEC(2010)409.

EC (2010c), Proposal for a Directive of the European Parliament and of the Council on deposit-guarantee schemes, COM(2010)368.

EC (2010d), Review of Directive 94/19/EC on deposit-guarantee schemes, Report from the Commission to the European Parliament and to the Council, COM(2010)369.

Debremaeker H. (2009), "De depositobescherming in deze tijden van beroering", *Bank- en Financiewezen*, 2-3, 129-137.

Demirgüç-Kunt A., B. Karacaovali and L. Laeven (2005), *Deposit insurance around the world: A comprehensive database*, World Bank, Policy Research Working Paper 3628.

Diamond D. and P. Dybvig (1983), "Bank runs, deposit insurance and liquidity", *Journal of Political Economy*, 91, 401-419.

ECB (2009), Eurosystem's stance on Commission's consultation on deposit-guarantee schemes.

FSF (2001), Guidance for developing effective deposit insurance systems, Basel, Switzerland.

Garcia G.G. (2000), Deposit insurance: Actual and good practices, IMF, Occasional Paper 197.

Greenspan A. (2001), *The financial safety net: Costs, benefits and implications for regulation,* Lecture at the 37th annual conference on bank structure and competition of the Federal Reserve Bank of Chicago, Chicago, US, May 10.

Gropp R. and J. Vesala (2004), Deposit insurance, moral hazard and market monitoring, ECB, Working Paper 302.

IADI (2006), General guidance to promote effective interrelationships among financial safety net participants, Basel, Switzerland.

IMF (2010), A fair and substantial contribution by the financial sector, Interim report for the G20, Meeting of G20 Ministers, April.

Madiès P. (2009a), "Pourquoi et comment garantir les dépôts des bangues?", Bangue & stratégie, 271, juin, 47-52.

Madiès P. (2009b), "Pourquoi garantir les dépôts bancaires?" Économie appliquée, 62(2), juin, 69-104.

Ondo-Ndong S. and L. Scialom (2008), *Northern Rock: The anatomy of a crisis – the prudential lessons*, Université Paris X-Nanterre, Working Paper 23.

Protection Fund for Deposits and Financial Instruments (2010), Activity report & annual accounts 2009.

Schich S. (2008a), "Financial turbulence: Some lessons regarding deposit insurance", *OECD Financial Market Trends*, 94, 55-79.

Schich S. (2008b), "Financial crisis: Deposit insurance and related financial safety net aspects", OECD Financial Market Trends, 95, December.

Trichet J.-C. (2008), *Capital markets and financial integration in Europe*, Lecture at Second Symposium of the ECB-CFS research network on Capital Markets and Financial Integration in Europe, Frankfurt am Main, Germany, 13 February.