

## **REFORM OF THE SYSTEM OF INSOLVENCY PROVISIONS**

**Speech given by Mr Raimundo Poveda, Director General of the Bank of Spain, at the APD, Madrid, 18 January 2000.**

Last December the Bank of Spain published a Circular modifying the regulations on provisions for credit risk or provisions for insolvency contained in its Circular on accounting standards.<sup>1</sup> This modification presents a number of interesting and important conceptual novelties, which will have a noticeable effect on the accounts of credit institutions over the coming years. The draft proposal, just like any accounting standard issued by the Bank of Spain, was submitted for consultation to the professional associations of the credit institutions affected, and other public bodies and departments involved. In this case, precisely because of its novelty and importance, the consultation process was a lengthy one, and resulted in more intense debate than is usual for an accounting standard in our country; it therefore received an exceptional level of coverage in the financial press. However it should be pointed out that this debate was not greater than that which in other countries, and in particular those in the Anglo-Saxon world, is normal when important accounting rules are being prepared. The debate was, overall, constructive and useful as it allowed technical refinements to be made to the initial proposals and facilitated its acceptance by defining a level of provisions whose implementation would not be traumatic for credit institutions or markets.

The modifications made in December on the subject of provisions are of two types. The most important and original novelty is the creation of a new concept of insolvency provision. This provision began to be called, depending on tastes, anti-cyclical or stabilization provision, terminology which focused on the effects of the accounting mechanism designed for the new provision. However, it has finally been called statistical provision, which more closely reflects its nature. At one point the name "actuarial provision" was considered, borrowing from insurance techniques a term which, in short, means the same as statistical provision. The rest of the modifications in the December Circular consisted of a revision of the existing concepts of insolvency provision, polishing them in the light of experience, and above all, adapting them to the highest international standards on the subject.

I am going to look in turn at all the modifications made in the Circular, but I will devote most of this talk to statistical provision.

### Accounting regulation and prudential regulation

It is worth beginning by situating this provision within the framework of prudential doctrine, as this cannot be overlooked when designing accounting regulations for credit institutions. It is customary to centre the efforts of prudential regulation in the field of solvency ratios, and other rules of conduct whose task is to ensure the financial health of credit institutions. In many countries bank accounting rules are kept apart from strictly prudential objectives. But this distancing is neither necessary nor advisable. There is an increasing international awareness that accounting regulations play a crucial role in the fundamental goal of prudential regulation, i.e. ensuring banks are sound. More specifically, in the various international forums in which bank regulators and supervisors meet, a conviction has been reached that without an adequate, prudent and effective set of accountancy valuation rules for operations involving credit risk, or put another way, insolvency provisions, prudential regulation

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<sup>1</sup> Circular 9/1999, 17 December 1999, to credit institutions, on the modification of Circular 4/1991, 14 June 1991, on accounting standards and models of financial statements (BOE 23 December). See also Circular 10/1999, 17 December 1999, to credit institutions, on modification of Circular 5/1993, 26 March 1993, on the determination and control of minimum own resources.

as such would be useless, even with the best designed and most strictly applied solvency ratios. Levels of own resources which are apparently of the most solid can suddenly collapse at the first signs of a bad debt crisis if the portfolio has not been properly qualified and provisioned. There are numerous examples of this.

Unfortunately, this conviction on the part of supervisors has not yet led to international harmonization of accounting rules on provisions parallel to that which has taken place in the area of own resources requirements. This is most likely due, on the one hand, to the compartmentalization of areas of standardization which prevails in many countries; a compartmentalization which also exists at the level of international regulators. And on the other hand, to the fact that credit risk being a typical banking problem (although not, of course, exclusively a banking problem), has not attracted as much interest among accounting regulators as banking ones. The result is that the brief precepts of general accountancy regulations covering the valuation of this risk, however correct they may be on paper, are largely ineffectual in practice for credit institutions.

In Spain the close relationship between both subjects -accounting and prudential supervision- has long been recognized, even before the banking crisis of the early eighties. The regulation of insolvency provisions, and other provisions, which was developed by the Bank of Spain over the course of the decade, constituted a fundamental part of the regulatory policy which set out to ensure the health and solvency of credit institutions; this fact preceded modern solvency ratio regulation.

#### The revision of the quantification of credit risk in the prudential standards

Let us therefore assume that there is a close relationship between accountancy valuation rules and prudential banking standards (at least in the case of credit risk). But, as is well known, the fundamental part of prudential standards, the solvency ratio that was defined in 1988 by the Basle Committee for Banking Supervision, has recently been criticized by its own creators, opening up a hazardous revision process and we do not yet know for sure where it will lead. Some of the aspects of the discussion taking place are relevant to the particular subject with which we are concerned today.

Indeed, the criteria which determine the regulatory requirements on the own resources of credit institutions are to a large extent conventional or institutional criteria, which are intuitively reasonable but lack any true scientific basis. One of the main lines of this revision seeks to bring the regulatory criteria closer to financial institutions' true economic needs for own resources, as a function of the best possible quantification of the risk of each specific institution. I said that the attempt was hazardous as neither the economic nor business doctrine applicable to banking finance and accounting -and much less so that applicable to banking practice- currently offer any precise and (as statisticians say) robust quantifications of banking risk in general, and credit risk in particular. But perhaps the best product of the revision of the regulations on own resources undertaken is that it is forcing supervisors, and credit institutions themselves, to reflect in depth on the problem of quantifying banking risk. And some of these lines of reflection point to very interesting ideas.

I'm not going to go in depth into this subject, which could be the subject of a complete lecture in its own right, as it would take us too far from our aim. But I will mention a topic which connects directly with our subject, and that is one of the possible points to decide on the possibility of statistical provision.

Apparently the Basle regulators have given up on the initial idea of basing own-resource requirements for credit risk on a complete and rigorous statistical model of the institutions themselves. By this I mean that they have dropped it as an ingredient of the revision proposal that is due to come out in the second half of the year. The reason for this is that these models are not sufficiently general, and those that do exist are not sufficiently well verified to constitute a practical regulatory proposal. Moreover, development of these models

depends on prior accumulation of large quantities of data, which will require a great deal of time and effort. Nevertheless, international regulators have not abandoned internal models as a mid- or long-term goal, and are encouraging institutions to continue working on their development and use.

At present an alternative line is being explored which in certain respects, or in certain of its variants, could exhibit signs of convergence with statistical models. This is institutions' internal risk qualifications. Here there is considerable variety and diversity in the ways of looking at the problem, and most likely the main practical goal of the systems used is to help select operations, rather than to determine their book or financial value. But some of the richest internal qualification systems exploit the quantitative information available to establish the probability of default for certain homogeneous categories of risk and even (less often) to estimate the expected losses in the case of default. However, it does not seem that the systems in use at the moment manage to incorporate a temporal perspective taking into account the cyclical aspects of defaults. I am referring here to Spanish experience. The Bank of Spain is currently studying in depth the characteristics of the internal qualification systems used in Spain, within the framework of work on the subject undertaken in Basle and Brussels. One of the conclusions of this study is that certain internal credit qualification systems in use suggest that their users are making significant progress towards the objective quantification of credit risk.

#### Quantification of credit risk in accountancy doctrine

Once an acceptable quantification of banking risk has been achieved in one way or another -good or not so good- the question immediately arises as to how to deal with the risks measured. In general it is felt that they should be covered by financial resources. Some types of risk might be suitable for other treatment (for example, quantitative limits), but in the case of credit risk this is the most logical prescription. What then is the nature of the financial cover to be given?. Traditional accountancy doctrine cannot give a complete answer to this question because it takes a limited view of the problem. It only concerns itself with covering the impaired assets, i.e. those that have suffered default or any other signs that the assets, or their holder, have entered a situation which endangers the full recovery of the banking investment. For these assets it prescribes the constitution of provisions, or the application of valuation corrections, which is basically the same thing, to the value of the loss suffered, which is always charged to the profit and loss account.

Nevertheless, there is no fundamental reason why we should limit ourselves exclusively to impaired assets when we are talking about risk. We should concern ourselves with the whole portfolio, including the portfolio of circulating assets, as this portfolio can also conceal latent losses which have not yet been identified individually, but which can be estimated with greater or lesser accuracy or certainty overall using statistical methods based on past experience. As it does not recognize these latent losses, traditional accounting doctrine behaves as if the portfolio were risk-free until a default occurs, as if credit risk were not a normal part of business but rather an accident about which one need not concern oneself until it happens. If a bank makes statistical forecasts of non-impaired exposures, as banks in the German-speaking world do, this doctrine tends to view them as a type of voluntary reserves set aside by the institution, and generated by distribution of profit, rather than real provisions. This treatment may be justified somewhat in practice by the difficulty of evaluating the potential losses, but then nor is it easy to evaluate the final loss of an impaired credit at the time a customer begins to default: sometimes, or rather, frequently, this initial valuation of the damage is nothing more than a subjective or conventional estimate, without any objective basis, as the real damage will only be known with the final liquidation of the assets. And despite this, such valuations of impaired assets are accepted due to their evident practical utility. The argument that they are difficult to calculate is therefore not valid. In my opinion, the doctrine, as a result of its not recognizing latent losses on the credit portfolio, not only fails to adhere rigorously to the principle of prudential valuation, but is also not consistent with the principle of a true and faithful view.

Nevertheless, the traditional doctrine allows a major exception. In the accounts of insurance companies, that other major sector whose raw material is risk, the potential losses on “unjeopardized” policies, i.e. live policies against which no loss has occurred, are recognized on the balance sheet and are estimated using statistical methods. These are not generated from distribution of profit, and the funds which cover them, although incorrectly called reserves (mathematical reserves, reserves for current risks ), do not form part of own resources nor do they satisfy the solvency ratio. This different accounting solution is backed by two favourable circumstances. The first is that the quantification of risk in the insurance industry is in a more advanced state than in the banking world (although certain non-life operations raise problems of quantification no lesser than those raised by banks’ credit business). The second is that in insurance contracts the insurance company charges in advance for the value of the risk covered, which means that the book record of the potential risk becomes formally a simple matter of accrual of premiums. On the other hand, in most banking contracts with counterparty risk these charges (the portion of interest which corresponds to a risk premium) are produced in arrears and in fractional payments. But these circumstances do not remove the basic problem that there is a similarity between the banking and insurance sectors.

#### Practical problems with including credit risk on the accounts

If the accounts do not recognize the potential risk of credit -a risk inherent in the banking business, and certainly a real one- financial institutions have to cover it either by drawing upon income, when margins allow, or in the last resort, by charging it to own resources. However, both types of cover are inadequate, both for the conceptual reasons mentioned (the fact that the accounts are overlooking an economically important factor) and for the following practical reason. Credit risk has a characteristic that is extremely inconvenient and dangerous for an institution’s accounts: losses, that is to say, defaults, are not distributed evenly over time, but tend to accumulate in the troughs in the economic cycle. This is a fact that has been proven on many occasions in both our country and many others in one economic cycle after another. Therefore, if provisions are only set aside for the impaired exposures, in good years the burden insolvencies place on the income account is minimal, profits boom in a rather deceptive way, and it is possible that more dividends are distributed (or more charity and social work is done) than a prudent long-term view would recommend. On the other hand, in the bad years the burden is multiplied, cutting and cancelling out profit. One author has commented that banks suffer from disaster myopia: in good years, without defaults, banks tend to forget past problems, lowering their credit standards as the years of economic difficulties get further behind them; and then they have to be revised sharply when the bad times come again. Accounting rules consecrate this possible flaw in behaviour. The failure to recognize latent risks induces cyclical movements in the profit and loss account, and as a consequence, cyclical movements in interest rates if credit institutions pass on their optimism or pessimism about their results to their pricing policy.

This is not positive for the stability of credit institutions, and if one thinks about it a bit, nor is it positive for economic stability in general, as, in short, it accentuates the amplitude of economic cycles through the credit route.

The alternative to covering cyclical deviations in insolvency with current income would be to cover them with own resources. This is only an alternative relatively speaking, as the use of own resources does not avoid, or rather, requires, the prior deterioration of the income accounts. The Basle prudential doctrine seems to suggest this alternative when it allows the computation as own funds of provisions for general banking risks which are valued as a function of the assets exposed to credit risk; or when it refers to expected levels of loss on the different types of credit assets to discriminate between the weightings applicable for the calculation of own resource requirements. But the systematic coverage of a risk with own resources is not a sensible policy: the cyclical behaviour of the income account would be passed on to the own-resources ratios, which would have to be much greater than the

regulatory minima at the end of the favourable phases in the economic cycle, in order to be able to fall several points (it being assumed that they must do so without crossing these minima) during the bad phases. And these movements would undoubtedly be dangerous for credit institutions which depend on the confidence of the markets.

#### A new accounting approach to credit risk

The ideas that emerge from the current analysis of the quantification of risks suggest another, more balanced, division of tasks: in this division the task of covering the average expected value of the burden of insolvency on the credit portfolios as a whole would correspond to the risk premiums on current operations, or to be more exact, the statistical provisions that in some way should hold them in place. Own resources would only cover the deviations or unexpected movements in this burden. The cyclical movements in the burden of insolvency would not, in principle, be included among unexpected movements.

Although this statistical or actuarial treatment of credit risk has not yet obtained general acceptance in accounting doctrine, and less so in fiscal doctrine, it has been gaining support in recent years, in particular since 1995. Three years ago, the journal *The Banker*, basing itself on earlier ideas by Brian Quinn, former director of supervision at the Bank of England, pushed for statistical handling of latent credit risk, something it christened as dynamic provisioning<sup>2</sup>. In 1996 the Canadian Office of the Superintendent of Financial Institutions accepted the calculation of general provisions on credit risk based on statistical models. These general provisions would be applied at the time of covering the risks jeopardized. These models take into account cyclical risk movements<sup>3</sup>. In a less elaborate way, the FASB in the United States has accepted the use of historic statistics in the adjustment of the valuation of homogeneous segments of the credit portfolio since 1993<sup>4</sup>. Something similar happens in the case of German accounting rules. A number of sophisticated international banks have introduced statistical or actuarial credit portfolio provision methods over the last three or four years, although they have given them various commercial names, which may be confusing for readers. A year ago, Edgar Meister, member of the Bundesbank and president of the Banking Supervision Committee of the European Central Bank, wondered during a workshop on risk modelling, whether it might not be appropriate for banks to learn about risk quantification from insurance companies. He claimed that the financial mathematics needed to quantify credit risk was available, but that the immediate problem for its application was one of information, i.e. that databases were inadequate or ill-prepared to provide reliable estimates of risk, thus suggesting that the use of internal models for the solvency ratio should be postponed<sup>5</sup>. But in Europe, in mid-1999 the Bank of France announced that it was studying an *ex ante* provision mechanism, i.e. a mechanism tackling latent risk, with anti-cyclical consequences.

#### The new Spanish regulations

We shall close our excursion through doctrinal territories, in which we have looked at banking industry practice and regulation in other countries, and move on to look at the specific content of the Bank of Spain proposal.

The Circular published in December establishes the obligation to set aside, against

<sup>2</sup> M. Hogg "Deal a debt dynamo", *The Banker*, February 1997. See also E. Davis "Bank Credit Risk", Bank of England, Working Paper Series n<sup>o</sup> 8, 1993, and Bank of England "The Cyclical nature of bank profitability and provisioning policy", Banking Act Report, 1994/95.

<sup>3</sup> Office of the Superintendent of Financial Institutions (Canada) "Policy on general allowances for credit risk" Statement 1993-03.

<sup>4</sup> FASB, Statement of Financial Accounting Standards n<sup>o</sup> 114; OCC, FDIC & FRB "Interagency Policy Statement on the Allowance for Loan and Lease Losses", December 1993.

<sup>5</sup> E. Meister. "Appropriate determination and capital backing or credit risk is the central theme of inspection", *Kreditwissen* 3-99.

the profit and loss account, provisions intended to cover overall latent insolvencies on the credit portfolio, or more precisely, on the different homogeneous risk portfolios.

We shall first look at how overall latent insolvencies are estimated, and then why the new provision acts as a stabilizing mechanism. This is a consequence of the set of accounting rules designed by the Circular to accumulate resources in the corresponding fund, or to use them when appropriate. Note that the obligation created by the Circular is to make certain provisions, not to set up a fund with a particular capital.

#### The use of internal methods for the calculation of latent risk

The Circular provides two options for estimating latent insolvencies. The first is the institutions themselves calculate this burden from “their own experience of defaults and their own expectations of losses from homogeneous categories of credit risk, bearing in mind the quality of the different types of counterparties, the collateral provided and its recoverable value, the lifetime of the operations, when relevant, and the future evolution of the risk as a function of foreseeable changes in the economic situation in the medium and long term. The methods of calculation will form part of an appropriate system of measurement and management of credit risk, will use a historical base which includes a complete cycle, and their conformity should be verified by the Inspection Services of the Bank of Spain<sup>6</sup>.”

The regulator hopes, as stated in the preamble to the December Circular, that institutions develop and apply this internal credit risk estimation technique as soon as possible. By defining it as an ideal system, the circular is proposing it as a goal for all institutions. Nevertheless, the Bank of Spain places several conditions on the use of internal models, to ensure the robustness of the internal estimates by institutions. Not to do so would be naïve, as experience shows that day-to-day pressures always end up tempting not a few institutions from following easier paths.

The prior condition for applying internal methods is, obviously, to have the necessary information on the real cost of insolvencies. This information should unite two characteristics: it should have sufficient historic depth, and should be stratified into homogeneous risks.

As regards the first characteristic, the circular itself indicates that the information should cover a complete economic cycle. The cost of insolvency for a jeopardized operation can only be established with certainty once the process of liquidating the operation has been completed (or when the customer manages to regularise his financial situation), and this normally takes years. It is also clear that the experience of the last two or three years, during which the economic situation has generally been good and credit counterparties have behaved well, is atypical and almost certainly does not represent the long term cost of portfolios on the basis of earlier Spanish experience, or on that of experience in other countries. All together this calls for a historic base of some length. The fact that the Circular sets this length to be a complete cycle shows our intention that the burden of provisions is approximately equal to the average long term value. On the other hand, the projection of this value into the future implicitly starts out from the hypothesis that the clientele and management techniques of an institution are sufficiently stable over the long term, because history can only point to the future if the conditions surrounding past experience are maintained. And in the real world this stability is only relative. This implies that extrapolation from past experience should not be absolutely mechanical. As we shall see, extrapolation of aggregate data underlying the standard alternative model offered by the Circular is not mechanical either. But the deviations from experience (or at least the downward ones) should be sufficiently well reasoned and justified to be acceptable.

The Circular indicates that the internal methods should be based on the institution’s

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<sup>6</sup> Circular 4/91, Rule eleven, sub-section 8.

own experience. This restriction takes into account the specificity of the methods of selection, management and recovery of each institution, and the differing qualities of their respective clienteles, even within the same category of customers and collateral. Could an institution use the experience of other institutions, or the pooled experience of many institutions, as happens in the insurance world? This is a possibility which shouldn't be completely ruled out in the future, if the comparison of individual experiences, when possible, shows convergence or common features between institutions. This may be more likely to happen in some segments of the credit market than others. If this were the case, it would be possible to use the experience of others in internal calculation methods, which would promote their diffusion; or alternatively, it would be possible to incorporate the conclusions of this experience in the standard model. But, at the moment, the working hypothesis that the individual specificity of the risks is important is maintained, and these developments based on external or pooled data are left for the future.

When modelling the institution's own experience, the risk portfolio must be segmented into homogeneous categories. The Circular does not define what homogeneous categories are, but it gives an indirect indication of what they might be by establishing the categories of the standard model. This does not mean that internal methods should automatically follow these categories. Institutions' own experience may suggest others. It may make sense, for example, to introduce geographical distinctions, or distinguish between sizes of customers, if these subgroups produce reliable estimates.

It could be the case, on the other hand, that an institution is able to model some categories of customer or operations, and not others. The Circular allows for this possibility and puts forward the application of the standard method, by default, for the categories for which no reliable estimate of risk is available. I don't need to add here that the supervisory authority, when verifying the methods proposed by institutions, will seek to ensure that partial modelling does not seek to hide attempts at what in the English-speaking world is referred to as cherry picking: in this case, cherry picking would mean keeping those parts of the internal method which give more convenient results than the standard method, and muting those parts in which the institution's own experience gives worse ones.

The last point I want to make about internal calculation methods is that they should form part of an appropriate system for the measurement and management of credit risk. That is to say, it is not a question of doing a few more or less well founded calculations so as to escape the standard model, but of establishing an integrated credit risk management system. This should ideally reach all phases of the process, from selecting and setting prices, through to the subsequent follow-up of the results obtained (and, in particular, the adverse results), without overlooking the checking and updating of the methods, and their use in parallel with the estimation, in due course, of the own-resources requirements for credit risk, when the models are also accepted in this area of regulation.

All together this set of conditions may appear to be very demanding. Some people might think they are going to postpone the practical application of what the Bank of Spain considers to be the ideal option sine die. We do not share their pessimism. The study carried out on the internal credit qualification methods shows that several Spanish institutions are extremely interested in advanced risk quantification techniques. They are currently developing integrated risk management systems and compiling the necessary databases. Therefore, within a fairly short space of time, they should be in a position to submit their internal calculation methods to the Bank of Spain.

And if this were not to happen, it would give cause to suspect that the parameters of the standard method have been set too low, and so internal calculations by credit institutions tend to give higher levels of risk, and so demand higher levels of provision. In this case, the standard method should be adjusted to make it more realistic.

### The standard method

Let's now move on to look at the standard method, that is to say, the default method proposed by the Circular for those unable to submit (or not yet able to submit) their own internal calculation method.

The standard method divides the credit portfolio -or more precisely, the credit portfolio that should be the object of general provisions- into six categories in order of risk. Why six categories? The nuances of risk are infinite; it would be very easy to multiply or subdivide these categories. In the discussion on the Circular with the sectors involved, there was no lack of suggestions for the creation of intermediate categories to accommodate particular risks that, let's say, could be a little better than the rest of the category in which the text under discussion included them. Nevertheless, in the current state of knowledge, and starting out from highly aggregated data which does not permit sophisticated quantifications, there was really no basis for greater differentiation. Six categories seem to be sufficient to encompass the genuinely significant differences in the institutions' portfolios. In the current review of the solvency ratio there was also a proposal that the number of weighting "baskets" be increased, but everything seems to point to this idea being a step backwards (except for the creation of a more expensive one than those currently in existence).

The portfolio which is the object of provision includes the credits, fixed-income securities not held on the trading portfolio, and off-balance sheet risk of the different economic sectors in the Public Administrations and credit institutions. The division of this portfolio into the six categories basically takes into account the characteristics of the different types of customers and the effectiveness of the guarantees provided. In the null risk category (simplifying a little the enumeration) are risks backed by the public sector, or by credit institutions, those backed by money deposits, and those for which collateral in the form of public funds, investment funds or credit institution securities, has been given. These are risks in which it is barely imaginable that a loss could occur. In the low-risk category are those assets that are valid as security for the European System of Central Banks, attending to its strict selection criteria, i.e. companies which have qualification A or higher from credit rating firms, mortgage lending for buying homes, and their securitized bonds. Medium risk includes financial leasing in general (although immovables that can be assimilated to homes fall into the previous category) and other real security. The next category, medium risk, is defined by default: It encompasses everything not specifically in one of the other categories. Medium-high risk includes consumer credit and risk with residents in countries with country risk that do not need specific cover for country risk: "country risks" for which provision is made, and these provisions, do not enter the scheme of statistical provisions. And lastly, high risk includes credit card balances, overdrafts, impaired assets which do not have specific obligatory cover.

The method does not differentiate -and it has been reproached for it- between institutions according to the credit quality of their portfolios. It has been said that in this way the model penalizes good institutions, which have to make statistical provision because they do not have to make specific ones, with respect to bad ones, which having to make many specific provisions do not have to make statistical ones. This is true, although it sounds strange to use the term penalization for a mechanism which strengthens the health and solvency of the "penalized" institution. But the solution to this defect will require complex corrections, which must be established in accordance with the differences in the burden for insolvency, not at the overall level, but rather at the level of the different categories of assets of some or other institutions. These are corrections it is not possible to design with the information currently available. Perhaps this problem may be tackled in the future.

We therefore have the assets arranged in order of increasing risk. How can we get from this ordering to numbers giving a concrete quantification of the provisions to be made? Two criteria need to be dealt with. Firstly, the coefficients to be applied to each category must reflect gross modo the risk premiums on the corresponding category, bearing in mind that the annual coefficients are cumulative up to a maximum of three years, and that general provision (the 0.5 or 1% of the old regulation of provisions) can be understood to fulfil in part a similar

function to statistical provisions. Secondly, and this is at the moment the most significant criterion and the one that works with reliable statistics, the vector of the coefficients applied to the six categories should produce similar provision to the average burden for insolvencies registered over the whole cycle. And together with these criteria there is a restriction: the new scheme should not produce an excessive perturbation or a break in the profit and loss accounts.

Let's take a look at how these criteria are put into practice. The net burden of insolvency is made up of four elements: net provisions to specific provisions, direct repayments of credit assets for which no previous provision has been made, recovery of assets assumed lost (suspended assets) and the liquidation value of assets awarded in payment of debts (the latter two items being subtracted from the first two). The results of the liquidation of assets awarded by the courts are not identified in the accounting information, nor are they easy to identify (and less so now, with the tendency to transfer these assets to a holding); and even if they were, they would raise problems of allocation to the credit operations from which they originate, as they are mixed with subsequent price variations with which they have little to do. We therefore do without this element, in the knowledge that this implies an overestimate of the cost of insolvency. For the other elements we have the systematic information from the eighties and nineties for the case of the major groups of credit institutions. But the information for a large part of the eighties is affected by a series of upward adjustments in the accounting rules on specific and general provisions, and the after-effects of a banking crisis that should be considered exceptional and unrepeatable, meaning that it should not be relevant to future projections.

Between 1986 and 1998 the average burden caused by insolvencies, as I have just defined it, was between 0.88% of the assets potentially subject to provisions in the case of banks, 0.79% in savings banks, and 0.83% in credit co-operative banks. The inclusion of 1999 data, when they are finalized, will lower these ratios by three or four basis points. Will it therefore be necessary to design a vector of coefficients able to produce an average burden of around 0.8%? There are several reasons for lowering our sights. The first is the point already mentioned regarding the exceptional circumstances in the eighties. Secondly, the undoubted improvements in the management and recovery of credit that have taken place in recent years should be mentioned (stemming from the problems in 1993 and 1994). There have also been improvements in the selection processes, but one is tempted to doubt their effectiveness, in view of the very high rates of credit growth in the last two or three years. Finally, it should be borne in mind that the important thing is not the cost of the last cycle, but the cost of the cycle to come, and although this is obviously unknown, it would not be too optimistic to think that there has been an improvement in macroeconomic management, and the next cyclical change, when it comes, will be smoother than has been common in the past (and its onset may be delayed longer).

On the basis of these arguments, we have opted for a vector of coefficients which produces a charge of approximately half the historical average charge, i.e. approximately 0.4/0.5%.

The chosen vector is made up of a zero coefficient for risk-free assets, 0.1% for low-risk assets (home-loan mortgages, A-rated companies, etc.), 0.4% for medium-low risk (other real collateral), 0.6% for medium risk assets, 1% for medium-high risk (consumer credit and risk for which there is no provision in countries with country risk), and 1.5% for high risks (overdrafts, impaired credits for which provisions have not yet been made).

This vector satisfies the two criteria proposed. On the one hand, it would seem to be a reasonable approximation to the risk premiums set by the market, insofar as these may be known, which is not easy given the heterogeneity of institutions' credit policies and commercial products. In some cases it may fall short. If so, the new position, contrary to what some people have said, should not have any significant effect on shifting interest rates. On the other hand, the vector produces a regulatory burden on institutions as a whole that is within

the indicated range. In effect, on the structure of portfolios in 1999, it produced an average charge of 0.43% for banks, 0.40% for savings banks, 0.41% for credit co-operative banks, and 0.53% for financial credit establishments. As is to be expected, in the application to individual institutions there is a greater dispersion, reflecting the greater or lesser weight of operations with larger or smaller coefficients, i.e. differences in their objective risk profiles. This dispersion of individual situations is notably greater between the banks and credit establishments, according to their vocational specializations. By contrast, all the savings banks and credit unions are close to the indicated figures, as a result of the overwhelming homogeneity of their asset structure. But this should not be a great surprise, as it corresponds in general terms with well-documented differences in the records of default and the corresponding insolvency burdens.

The imposed restriction is finally satisfied. The new provision implies a burden that the profit and loss accounts are perfectly well able to take on, according to the estimate made on the basis of the 1998 and 1999 data. It should be pointed out that these estimates are less reliable than the preceding ones, as some of the relevant elements needed to calculate the net provision according to the set of accounting rules we shall come on to study later (statistical rules, recovery of assets) are fairly volatile. The range of these estimates, for what it is worth, is situated at around 10/12% of profits after tax for the different types of institution. This would be a ceiling, at the aggregate level, as there are no reasons to suppose that the behaviour of these volatile factors is going to be even better in the near future than it has been in the reference years (an improvement that would increase the amount of the net statistical provision).

There is nothing sacred about the vector of coefficients in the December Circular. I shall not try to hide the fact that it was the result of a series of trials and successive approximations, and that they were chosen as they seemed to respond reasonably well to the conditions we imposed on the basis of the information currently available. It would not be at all unusual if this were to undergo adjustments and corrections in the next few years, as the information on risks improves, perhaps as a result of progress in the development of internal methods by institutions themselves, and also when the regulatory burden imposed by statistical provision can be compared with the real burden of insolvencies. If these adjustments do take place, it would be a repeat of the sequence through which the accounting regulation of classic provisions passed in the eighties, in the case of both insolvency and country risk: the original regulatory schemes underwent significant alterations in the years immediately following and then entered a period of greater stability. This stability was always relative, because circumstances changed continually and as experience accumulates it always suggests adjustments to the rules.

### The stabilizing mechanism

A key part of the system has already been set, namely the vector which defines the annual insolvency burden on the portfolio with credit risk. Let's look now at the accounting set designed by the Circular, as in short, the ability of statistical provision to act as a cyclical stabilizer depends upon it. I am going to explain this set of accounting rules as if it involved annual account entries, although in reality the accounting of statistical provision is carried out quarterly, so that the intra-annual accounts show the necessary provisions over time, and they do not accrue by surprise in a single adjustment at the close of the year. It should be noted that this mechanism is common to all institutions, whether they use the standard model or prefer internal methods.

Each individual credit institution calculates the insolvency burden that is produced by applying the vector from the standard method, or from its own internal method. We shall call this figure the gross annual statistical provision, or gross provision for short. What it has to provide against results is not that amount, but the difference between the gross provision and the net burden of insolvencies which is produced by the specific and general provisions (net provisions, plus direct depreciation of credit assets without prior provision, less recovery of

suspended assets). Note that under normal conditions this has the same effect as charging off the whole of the gross annual statistical provision and charging specific and general provisions directly against the statistical provision fund, without passing through the profit and loss account, or paying recoveries into this fund, again without passing through the profit and loss account. This alternative technique, which exists in comparative doctrine, has not been used so as not to alter in any way the status of the provisions that already exist, including their tax status. However, the idea helps us understand how the accounting mechanism designed stabilizes the total charge for provisions of all types up to the level defined by the gross annual statistical provision. If it is not necessary to make specific provisions and significant recoveries are obtained, these will feed into the statistical provision fund and not the profit and loss account. On the other hand, if the specific provisions exceed the statistical ones and there are no recoveries (as happens during an economic downturn) this excess of specific provisions makes it possible to recover an amount equivalent to the accrued statistical provision funds, and the profit and loss account does not suffer.

The stabilizing mechanism, however, does not work indefinitely. If the specific provisions grow considerably, or their rise during the economic downturn is prolonged, the statistical fund would be exhausted and the excess specific provisions would weigh directly upon the profit and loss account. In the opposite case, if the necessary specific provisions are scarce, or there are considerable recoveries, and the statistical provisions are therefore accumulating, the Circular envisages that this accumulation will cease when the fund reaches an amount three times the gross provision. As of this moment, the profit and loss account would benefit from the bonanza in relation to insolvencies. Statistical provision is therefore, within certain limits, a stabilizing mechanism.

Why the “three-times” limit? A formal reason for limiting statistical provisions is that the Community Directive on the annual accounts of credit institutions lays down that the amount of the financial assets can only be reduced above the identified need for coverage (i.e. above the specific provisions), up to a maximum of 4% of its book value<sup>7</sup>. The “three times” limit ensures that the statistical provisions plus general provisions (which do not respond to the coverage needs identified either) do not exceed this 4% even in the most expensive case, which would be that of an institution specialized in consumer credit. In the case of most institutions, accrued non-specific provisions would remain quite a long way from this percentage.

However, apart from this formal reason, the Circular seeks to avoid an indefinite accumulation of provisions. Ideally, the fund should reach the size needed to meet negative deviations arising during the next downturn, but no more than that: this includes all statistically identifiable hidden losses concealed in the institution’s portfolio. And in practice the “three times” limit enables the generation of a fund which appears to be sufficient, together with the general provisions, to meet a mild recession for the three or four years during which the phase in which the cost of insolvency is above average may last. Whether it is possible to build up the fund needed to meet the next cycle is obviously an unknown that no one can clarify at the moment. It will depend on how long the current favourable economic situation lasts. The immediate outlook in both Spain and Europe as a whole is good. There are therefore grounds for confidence that the new scheme will have sufficient time to grow and reach a size that makes it genuinely effective.

#### Other aspects of statistical provision

I am going to end this part of the exposition by discussing two or three additional aspects of statistical provision which are of practical interest for institutions.

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<sup>7</sup> Directive 86/635/EEC, art. 37.

In the first place, statistical provision is proposed for each and every one of the institutions which form part of a consolidatable banking group. If the idea is conceptually valid for Spanish credit institutions, it must also be so for other institutions in the group that are exposed to credit risk. Nevertheless, it is not proposed for consolidatable groups as such. As a result, provisions are calculated at the individual level, and are included on the consolidated accounts directly, without offsetting. It has been done this way because the parameters of the standard model derive from the statistical experience of Spanish credit institutions and from the expectations of these institutions based on the forecasts for the Spanish economy. The model has not been designed for other institutions, and in particular for credit institutions based in other countries, where the coefficient vector of the standard model would probably be inappropriate. For the subsidiaries of these institutions the model will simply be innocuous: they will not accumulate statistical provisions (unless they apply internal methods suited to their own risk conditions), but their excess specific provisions will not be subtracted from the statistical provisions that the parent must set up.

In the second place, statistical provision, like other provisions, is considered to be a valuation adjustment for the purposes of preparing public accounts and for the calculation of own resources. In these statements the assets it will be deducted from the assets that generate it, in the proportion set by the corresponding coefficients, and it will not be included in own resources, for the reasons I cited above in the first part of this talk.

The annual accounts, on the other hand, must show information about doubtful assets and about the three classes of insolvency provision (specific, generic and statistical). It is important that institutions, and particularly those with international reach or which operate in international capital markets, highlight in their annual accounts the impact of statistical provision, which may be novel on the international scene, in order to clarify to analysts the scope of both the charges made for it and the funds accumulated. The effort of the provisions would, in short, improve the health of Spanish financial institutions in the medium and long term, and this fact should be highlighted so that the ill-informed reader does not mistakenly believe otherwise.

The third issue is that of taxation. In my opinion, as I have tried to defend throughout this exposition, the new provision comes from recognition of the impact of hidden risk, and is therefore a debit no less necessary than that for specific provisions. As a result, it would be reasonable for it to be treated as a tax-deductible expense. However, I recognize that this is a novel idea, and one that will most likely take some time to be fully accepted. This being the case, it seems logical at least to allow the tax capitalization of statistical provisions, as these are in effect an advance against the specific provisions that must at some point be made in the future, and these are recognized for tax purposes.

#### Modifications in specific provisions.

We shall now move on to look at the modifications made in December to the classic insolvency provisions. Here the changes, above all, affect the details. The basic elements of the accounting and analytic scheme remain unchanged. There has been no lack of calls for general provision to be included in statistical provision. So far it has not seemed appropriate to take that step, but it cannot be ruled out for the future when the new mechanism is up and running and a satisfactory solution is found to the problems I have just mentioned.

Some of the modifications have made the existing framework of provisions tougher, in order to keep it up to the level of the best international models. The aim is to present regulations in which the criterion of prudent valuation stands out, something from which Spanish institutions of both national and international scope will no doubt derive benefit.

To this end, provisioning of defaulters is obligatory after three months, whereas up until now it had only been necessary after six, and it is certainly the case that waiting a full year before taking any action to adjust the valuation seems excessive. As is logical, the initial

percentage provision is set at a level which is moderate (10%), but sufficient to encourage institutions to improve follow-up of defaulters and speed up steps to regularize their situations.

Secondly, as is well-known, the so-called "long calendar" allowed lengthy delays (up to three years) before starting provisions for default on operations with particular types of mortgage guarantee. The application of the long calendar is now limited to home-loans in which the outstanding balance does not exceed 80% of the valuation. This modification is intended to limit this privileged treatment of the most secure operations, which present an adequate margin with respect to the value of the home purchased. This margin ensures the borrower's interest in saving the collateral, as already happened in mortgage market regulations and banking best practice. Furthermore, it excludes from this treatment mortgages on offices and business premises, not because there is any doubt as to the formal value of the collateral, but because of the greater price volatility of this type of building, which can vary greatly over such a long time span. International supervisory doctrine rejects the idea of giving special treatment to this type of collateral as it has caused serious problems for the banking systems of numerous countries.

Thirdly, the existing rules make it obligatory to classify unmatured assets of a loan as doubtful when there are outstanding payments due from over a year ago. However, in the case of personal loans with monthly instalments, this period is shortened to six months as families normally adapt the payment of instalments to their wages or salary, and so an accumulation of several months creates a problem which is difficult to resolve.

And, lastly, and again following the compared doctrine, the range of circumstances defining a situation of doubtful payment (apart from default) has been broadened. The criticism has been made that this range of circumstances includes some which are too open, i.e. which a legal expert would describe as indeterminate legal concepts, as they refer in the last instance to the institution's subjective valuation (or that of the auditor or inspector) of the existence of an incipient problem and of the possibility of realizing the asset. This criticism, however, should be rejected as, as any banker knows, there is no objective way or rigorous and failsafe technique, for evaluating a customer or guessing the appearance of a particular credit problem: the bankers and auditors need to use their discretion, which is based on their general experience of the business. What the Circular does is extend somewhat the range of worrying circumstances that everyone should take into account when making this judgment, taking into account the fact that cashflows are inadequate to meet debts, and the impossibility of obtaining additional finance.

Not all the proposed revisions to the regulations governing provisions make the existing rules tighter. The Circular makes the reasons for rehabilitation of operations which had come under creditors arrangements more flexible; it assimilates the treatment of financial leasing on premises which may be used as homes to mortgages for home loans; and it extends the range of real collateral which removes the need to set aside provisions for a credit asset with security pledged in the form of bank bonds and money market asset investment funds, provided that (and this is a reasonable condition that did not exist previously) the outstanding risk is equal to or less than 90% of the market value of the stocks, or the redemption value of the money-market funds.

#### Information requirements and coming into force.

We shall now look very briefly at administrative questions. Inevitably, the new statistical provisions, some of the changes made to the classic provisions, and some of the shortcomings recognized in the existing information, have made it necessary to revise and broaden the periodic information that institutions are obliged to provide to the Bank of Spain. However, the Bank is very much aware of the cost of its demands, both for the informing institutions and for itself, and therefore tries to keep them to what is strictly necessary.

The new statistical provisions, and the remaining modifications introduced in the classic provisions, will come into effect in July of this year. If you look at the timetables for the coming into force of important accounting regulations, you will see that half a year is a very common period, and one that is virtually forced upon us by the need to incorporate modifications to internal accounting, administrative and computer procedures in around four hundred institutions, whose adaptation is a difficult task. I shall not deny that a few months ago we regulators would have liked to start as soon as possible, but the solution adopted is a reasonable one and definitively avoids any danger of a break in the results published by institutions, as in the current year it will be equivalent to making half the statistical provisions of a full year. In any case, the Circular envisages the possibility of any institution wishing to start provisions earlier (including in the 1999 accounts) doing so, and this is not improbable as many of them have been setting aside funds above the regulatory requirements in the last few financial years. These provisions will be included in the statistical provision fund, although in principle will not exonerate financial institutions from complying, as of the third quarter of the year, with the stipulations the Circular lays down for each quarter.

Credit risk has been, and continues to be, the main risk factor faced by credit institutions. It is, at the same time, the raw material of their business, an element they cannot eliminate without ceasing to be banks, and also the cause of most banking problems when managed badly. Accountancy techniques currently in use demonstrate a certain short-sightedness towards this type of risk: they only recognize it when it is very close, but refuse to see it when it is still distant. This approach is fundamentally incorrect and is changing. The concern shown by institutions to develop integrated risk management techniques, to improve their systems of selection, monitoring and recovery, and their interest in modern methods of risk quantification arise out of this change in approach. The introduction of statistical provision is another step in this direction and naturally a factor in strengthening the health of Spanish credit institutions.

Thank you for your attention.