

Why are there so many Banking Crises?
Professor Jean-Charles Rochet
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Anthony Giddens

I'm very pleased to introduce Professor Jean-Charles Rochet this evening. Professor Rochet is currently visiting LSE as BP Centennial Professor. In his day job, so to speak, he is Professor of Mathematics and Economics at the University of Toulouse in France, but he's actually here for the whole year and we're very pleased to have him as a member of the LSE community for the year. He's written a great deal in the areas of banking supervision and financial regulation, the core backdrop to his lecture tonight.

The BP Centennial Professorship scheme was established in 1990 and has made a very major intellectual contribution to the life of the school and I would like to thank BP for their continuing of this programme which makes it possible to increase the already diverse intellectual nature of the LSE community.

Professor Rochet's title tonight is there before you, Why are there so many Banking Crises, I asked him on the way in the answer to the question but he said wait and see, so now we will get the answer.

Please give him a very nice, warm welcome.

Professor Jean-Charles Rochet

Thank you very much. Mr Director, ladies and gentlemen, it is a great privilege for me to give this BP lecture in front of you today and to tell you the truth, I'm very impressed. For one thing, I am very impressed that Director Giddens himself has accepted the Chair of Lecture, I'm a big admirer of your academic work and also of the influence of this work and policy decisions, not only here in the UK but also in other countries. In fact I wish the former French Prime Minister, Lionel Jospin, had read *The Third Way*, a book that I would like to call, if you will allow me the expression, Giddens's Bible. Indeed if Jospin had read this book more carefully we could have avoided the disaster of the last French Presidential Election.

The second reason why I'm very impressed today that I find myself in a very awkward position, indeed I'm going to lecture in English, with a terrible French accent, on the topic of banking crises, in the London School of Economics and as you all know the LSE certainly is *the* academic centre with the highest concentration in the world of top specialists of money and banking. If you add up the department of Accounting and Finance, the Financial Market Group and the Department of Economics. To understand my present feelings, picture yourself in a similar situation, where you would have to lecture in French on the topic of French cuisine in the Paris restaurant La Tour d'Argent in the presence of the best French chefs. So this is how I feel today. Of course, you could rightly argue that I was not obliged to accept this offer, as a matter of fact when Sudipto Bhattacharya and Peter Miller approached me two years ago to enquire whether I would be interested in holding the BP Centennial Visiting Professorship in the department of Accounting and Finance in the LSE, I was delighted and when David Webb offered me on top of that to benefit from an office in the Financial Market Group, I was positively thrilled and I immediately said yes.

My decision to accept this offer was, of course, influenced by the prestige of this position, but also by the fact that I had started working on the topic of today, the banking crises, and as I told you before the LSE is the place in the world to work on this topic.

So, if the views that I will defend today in front of you are largely based on my previous work with several of my co-authors like Jean Tirole from Toulouse and MIT, Xavier Freixas from Barcelona, Bruno Parigi from Padua and Xavier Vives from INSEAD, these views were also deeply influenced by discussions this year with several LSE professors.

Let us come now to the substance, namely why are there so many banking crises? Indeed, the last 20 years have seen an impressive number of banking and financial crises all over the world. In an interesting study of the IMF, Caprio and Klingebiel (1997) identify 112 systemic banking crises in 93 countries and 51 borderline crises in 46 countries since the late 1970s. More than 130 out of 180 of the IMF countries have thus experienced crises or serious banking problems. Similarly, the cost of the savings and loans crises in the USA in the late 1980s has been estimated to over US \$150 billion which is more than the cumulative loss of all US banks during the Great Depression, even after adjusting for inflation. On average the fiscal cost of each of these recent banking crises was of the order of 12% of the country's GDP but exceeded 40% in some of the most recent episodes in Argentina, Indonesia, Korea and Malaysia.

Here is a map that I like. The countries represented in blue are the ones that have experienced banking crises, while the countries in red have only experienced significant banking problems and as for the countries in white either we don't have sufficient information, like probably for most of the Arabic countries, or these countries have not experienced any significant banking problem. I do not know how Namibia succeeded to avoid the problems of all neighbouring countries, but I know for a fact that Greenland authorities have avoided a crisis because they have been able to freeze the banks' assets before it was too late. More seriously, these crises have renewed interest of economic research and several questions: The causes of fragility of banks and the possible ways to remedy this fragility, the justifications and organisation of public intervention. This public intervention can take several forms:

- liquidity assistance by central banks - lender of last resort;
- solvency requirements;
- supervisory systems, supposed to monitor the activities of banks and can decide to close them.
- Finally, in many countries depositors are now covered by deposit insurance schemes in case their bank fails.

Important reforms have been introduced in the supervisory systems. For example, the American Congress has enacted the Federal Deposit Insurance Corporation Improvement Act in 1991 after the Savings and Loans crisis. Several countries, notably the UK, have created integrated supervisory authorities for all financial services including banking, insurance and securities dealing. Finally, the G10 countries have harmonised in 1989 their solvency regulations for international active banks. This harmonisation, known as the Basel Accord, since it was designed by the Basel Committee of Banking Supervision was later adopted at national levels by a great number of countries. The Basel Committee is currently working on a revision of this Accord, aiming in particular at giving more importance to market discipline.

Well, the objective of this lecture is to build on recent research in order to understand better the causes of banking crises and possibly offer policy guidelines for reform of regulatory supervisory systems. In a nutshell my main conclusions today will be:

- banking crises are largely amplified, if not provoked, by political interference.
- Supervision systems face a fundamental commitment problem;
- and finally the key to successful reform is independence and accountability of banking supervisors.

So, the plan of the lecture will be the following. I will start by the historical sources of banking fragility, then I will examine the first remedy, the lender of last resort, a second remedy, deposit

insurance combined with solvency regulations. Then I will try to draw a few lessons from recent crises; and finally I will conclude by examining the future of banking supervision.

So, first of all the source of banking fragility. Historically, banks started as money changers. This is testified by etymology. If I am not mistaken “trapeza”, the Greek word for a bank refers to the trapezoidal balance that was used by money changers to weigh the precious coins. Similarly 'banco' or 'banca', the Italian word for a bank, refers to the bench used by money changers to display their currencies. Interestingly, this money changing activity naturally led early bankers to provide also deposit facilities to merchants using the vaults and safes already in place for storing their precious coins. In England the same movement was initiated by goldsmiths. Similarly, some merchants exploited their networks of trade posts to offer payment services to other merchants, by transferring bills of exchange from one person to the other instead of carrying species and gold along the road. In both cases, early bankers realised very soon that the species and gold deposited in their vaults could be profitably reinvested in other commercial and industrial activities. This was the beginning of the fractional reserve system in which a fraction of demandable deposits are used to finance long term illiquid loans. This is represented by this simplified balance sheet of a representative bank.

So as long as the bank keeps enough reserves to cover the withdrawals of the depositors who actually need their money, which is less than the total amount of the deposits, the system can function smoothly and efficiently. But this system is intrinsically fragile. If all depositors demand their money simultaneously, as they are entitled to (the situation is referred to as a bank run) the bank is forced to liquidate its assets at short notice, which may provoke its failure. A spectacular example of a bank run occurred in October 1995 in Japan where the Hyogo Bank experienced more than \$1 billion withdrawals in just one day. But closures are necessary in order to eliminate inefficient institutions. Such closures correspond to what are known as fundamental runs, where depositors withdraw their money because the bank's assets are revealed to be bad investments. This Darwinian mechanism is useful to eliminate unsuccessful banks and incentivise bankers to select carefully their investments. But, unfortunately, bank runs can also happen for purely speculative reasons. A recent example of a speculative run occurred in 1991 in Rhode Island in the US, where a perfectly solvent bank was forced to close after the TV channel, CNN, used a picture of this bank to illustrate a story on bank closures.

As we will see, small depositors are now insured in many countries, which means that the modern form of a bank run is more what is called a silent run, where professional investors stop renewing their large deposits, or Certificate of Deposits as they are called, which is the case for example in the Continental Illinois failure in 1984.

The mechanism of a speculative run is simple. If each depositor anticipates that other depositors are going to withdraw en masse then it is their interest to join the movement, even if they know for sure that the bank's assets are fundamentally safe. Given that these speculative runs are seriously damaging to the banking sector, several mechanisms have been elaborated to eliminate those speculative runs. The first example was the institution of a lender of last resort.

The lender of last resort, which consists of emergency liquidity assistance provided by the central bank to the bank in trouble was invented, so to speak, in this country and the doctrine was articulated in 1873 by the English economist Walter Bagehot, elaborating on previous ideas of Henry Thornton. Bagehot's doctrine was influenced by the systemic crises that followed the failure of Overend & Gurney and Company in May 1866. Overend & Gurney was at the time the greatest discounting house, that is a broker of Bills of Exchange, if you like, in the world. During the previous financial crises of 1825 it was able to make short loans, i.e. provide liquidity assistance to most of the banks on the London Place and it became known as the Banker's Banker. After the death of its founder, Samuel Gurney in 1856, the company was placed under less competent

control. Experiencing big losses on some of its loans it was forced to declare bankruptcy in May 1866 with more than £11 million in liabilities. As a result of this failure, many small banks lost their only provider of liquidity and were forced to fail as well even though they were intrinsically solvent. In order to avoid such crises, Bagehot recommended that the Bank of England be ready to provide liquidity assistance to individual banks in distress. The main points of Bagehot's doctrine were that the central bank should a) lend only against good collateral, so that only solvent banks might borrow, and that the central bank would be protected against losses; b) lend at a "very high" interest rates so that only "illiquid" banks are tempted to borrow and that ordinary liquidity provision would be performed by the market, not by the central bank; and c) announce in advance its readiness to lend without limits in order to establish its credibility to nip the contagion process in the bud. The doctrine was first put into application by the Bank of England in the Baring crisis of 1890. It was then adopted on the continent, resulting in the absence of a major banking crisis for more than 30 years. In the USA, prior to the creation of the Federal Reserve System in 1913, commercial banks organised a clearing house system which served as a private lender of last resort for several decades.

Along more recent examples where Bagehot's doctrine was followed to the letter are the Bank of New York case of 1985 and the second Barings crisis in 1995. On November 21st 1985 the Bank of New York experienced a computer bug. It was a leading participant in the US treasury bond market and the computer had paid out good funds for the bonds bought by the bank, but would not accept cash in payments for the bonds sold. So, this quickly led to a \$22.6 billion deficit. Even if there was no doubt about the solvency of the Bank of New York, no single bank was in a position to cover such a huge deficit by an emergency loan. Similarly there was not enough time to organise a consortium of lenders. So the New York Fed solved the problem by providing an emergency loan against good collateral. On February 24th 1995, Barings once again made it known to the Bank of England that its securities subsidiary in Singapore had lost \$1.4 billion, three times the capital of the bank, due to the fraudulent operation of one of its traders. The Bank of England decided that since bilateral exposures were relatively limited and the source of Barings failure was a specific case of fraud, the threat of contagion in the UK financial system was not large enough to justify the commitment of public funds. As a result the bank failed on February 26th, however, the Bank of England clearly made public its willingness to provide adequate liquidity to the UK banking system in case of a market disturbance and, as matter of fact, the announcement itself was enough to avoid any such disturbance.

It is interesting to notice that in these two episodes the intervention of the Bank of England was triggered by different types of situations. It was a failure of the market to provide liquidity assistance to a solvent bank in the case of the Bank of New York, and it was a desire to provide liquidity support to the market, and more specifically to the bank, that might have been affected by the closure of a major participant in the Barings case. However, in both cases Bagehot's doctrine was followed in that tax payers' money was not involved. This is unfortunately not always the case. There are indeed several reasons why the central bank might consider supporting insolvent institutions. The first is systemic risk, i.e. the fear that the failure of a large institution might propagate to the rest of the financial system. Given that the central bank is typically responsible for the overall stability of the financial system, it is conceivable that it considers assisting large institutions whose failure might propagate to other banks. This was rationally involved on several occasions, for example in the bailout of Johnson Matthey Bankers by the Bank of England in 1984, even if the bank waited for more than a year before organising a consortium. A similar case is that of Continental Illinois in the USA, also in 1984: the bailout of Continental Illinois led to the unfortunate notion of a bank that would be "too big to fail".

A second reason why insolvent banks might be bailed out is political interference. Let me take as an illustration the case of my own country, France, where it is interesting to contrast two episodes. The

first episode corresponds to the failure in 1988 and 1989 of two Franco-Arab banks, Al Saudi Bank, and Kuwaiti-French bank, who were essentially recycling petro-dollars in loans to developing countries. They experienced important losses on their lending portfolios. The Bank of France decided not to intervene and the two banks were forced to close. By contrast the largest French bank at the time, the Credit Lyonnais, whose slogan was ironically "The Power to Say 'Yes'", started in 1988 a disastrous policy of bad investments which initially resulted in a spectacular increase of the activity of its total balance sheet of 30% in two years, and a 200% increase of its industrial holdings. However, very soon, heavy losses materialised, \$0.3 billion in 1992, \$1.2 billion in 1993 and \$2 billion in 1994. After some time the French government felt compelled to intervene, the total cost of the three successive rescue plans that were implemented was estimated to \$25 billion which, in per capita terms, is of the same order of magnitude as the total cost of the saving and loan crisis in the US, only that we, the French, were able to do that with one bank only, and it was enough to dilapidate the equivalent of £700 per French tax payer. A similar situation occurred in Japan during the Jusen crisis in 1995-99. Jusen were non-deposit taking subsidiaries of banks, created to provide affordable home financing for individual borrowers. The frenetic lending activity of these institutions contributed to the building up of the Japanese real estate bubble. When this bubble burst in 1995 the Japanese authorities had to inject the equivalent of \$24 billion in order to avoid a collapse of the Japanese financial system. Japanese banks are also famous for several spectacular episodes of fraud. For example, in 1990 it was disclosed by Daiwa Bank that a security trader in its New York branch had been able to conceal a cumulative loss of \$1.1 billion on the US Securities over 11 years. Similarly, in 1996 Sumitomo acknowledged that one of its copper traders was responsible for fraudulent transactions that amounted to a cumulative loss of \$1.8 billion over ten years.

So, let me now turn to two other fundamental mechanisms of public intervention in the banking sector, namely deposit insurance and solvency regulations.

In the USA the first deposit insurance fund was created in 1934, when the FDIC was set up in order to prevent bank runs and to protect small and unsophisticated depositors. The initial coverage was \$2,500 but it was gradually increased to the present figures of \$100,000. In the UK the system is less generous, its coverage is only limited to 75% of the first £20,000. In continental Europe deposit insurance has long been implicit in the sense that losses were often covered ex-post by tax payers' money or by a compulsory contribution of surviving banks, what the Bank of France calls "solidarite de place". A European Union directive of 1994 requires a minimum harmonisation among member countries, with the implementation of explicit deposit insurance systems having a minimum coverage of 20,000 Euros, funded by risk based insurance premiums. It has been argued that these deposit insurance systems were partly responsible, paradoxically, for the fragility of the banking system, whereas in fact they were imagined, or designed, exactly for the opposite. Several studies of the IMF tend indeed to show that countries that have implemented such systems are more likely to experience banking crises, surprisingly. The proposed explanation is that in such countries bankers feel free to take excessive risks, given that their insured depositors are not concerned by the possibility of a failure of the banks, since they are insured in all cases. In the absence of a deposit insurance system, like is the case in New Zealand, for example, bankers are disciplined the threat of massive withdrawals when depositors become aware of any excessive risk taking by their bank. The doctrine in New Zealand since December 1994 is thus "freedom with publicity". Banks are not really supervised but are only required to disclose detailed information on their accounts to their customers, and bank directors are personally liable in case of false disclosure statements.

In most other countries the reaction to banking crises has been on the contrary, to reinforce banking regulation and in particular solvency regulations. This started at the international level where the Basel Committee of Banking Supervision enacted in 1988 a regulation requiring a minimum capital level of 8% of risk weighted assets for international active banks of the G10 countries. The

different weights were supposed to reflect the credit risk of the corresponding assets. This regulation was later amended to incorporate interest rate risk and market risk. It was also implemented with small variations at the domestic level by the banking authorities of several countries. In particular in the USA, the reform of the Federal Deposit Insurance Corporation system introduced an important notion, that of prompt corrective action which is some form of gradualism in the intervention of supervisors in order to force them to intervene before it's too late. This is based on a full set of indicators known as Camels Ratings.

Let me now discuss the justifications for the solvency regulations, and they are essentially two fold. First, provide the minimum buffer against losses on bank's assets so as to decrease their probability of failure. The second justification is to provide incentives to bank stock holders to monitor the bank manager more closely because they have more to lose in case of failure. However, the Basel Accord of 1988 was severely criticised for being too crude and encouraging regulatory arbitrage by commercial banks. It was argued in particular that it was responsible for a credit crunch in the 1990s because banks found it profitable to substitute government securities to commercial and industrial loans in their portfolios of assets.

Now, let me try to draw some lessons from the recent crises. The crises of the last 25 years have provided very useful evidence for research. Economists have examined several questions. For example, Hoggarth et al. (2001) of the Bank of England, criticised the use of fiscal costs, that is the amount transferred from taxpayer to creditors of failed banks, as a true measure of the economy cost of banking crises. Indeed those fiscal costs are more a transfer than an aggregate cost to society. So they propose instead to evaluate the output loss, i.e. the amount of wealth that would have been provided or produced in the country in the absence of a crisis. They find that this estimated output loss is large, around 15 to 20% of the annual GDP and even larger in the case of a twin crisis, that is to say a currency crisis occurring simultaneously with a banking crisis. This confirms previous studies of Kaminsky and Reinhart (1996, 1999) and a different pattern seems to emerge in developed countries and developing countries. In developed countries, banking crises alone are already very costly whereas in developing countries it seems that the cost is significant only in the case of a twin crisis. So I will not deal with this aspect today since I'm focusing on the developed countries and I don't want to attack the question of currency crises. But other economists, like Bell and Pain (2000) or Davis (1999) have tried to establish common patterns of banking crises and derive indicators for predicting those crises, for example, Davis argues in particular that the East Asian crisis that started in 1997 exhibited features very similar to earlier crises in Scandinavia or Japan, namely vulnerability to real shocks, such as export price variations and foreign currency exposure. However, the East Asian crisis had very little impact on the securities market of the OECD countries by contrast with the Russian crisis of August 1998. The reason seems to be that the moratorium on Russian public debt generated an unwinding of leverage positions on US Treasury markets - \$80 billion for LTCM alone, more than \$3,000 billion for commercial banks altogether. Whereas the Asian crisis only resulted in bank runs instead of affecting markets and so the consequence was only failure of domestic banks.

Also, economists have tried to assess the characteristics of banking systems that were more likely to be associated with a large probability of crisis or a large cost of resolution. Honohan and Klingebiel (2000) showed in particular that pre-crisis provision of liquidity support, which is often used by governments to delay the recognition of a crisis is the most significant predictor of a high fiscal cost, once the crisis erupts.

Finally, the Scandinavian banking crisis of 1991/92 was much more dramatic in Finland and to a lesser extent in Norway than in Sweden and Denmark. The common causes were a somewhat improvised deregulation of financial markets, an economic boom and an asset market bubble followed by a real shock, which in the case of Finland was essentially the collapse of the Soviet

Union. The result was a massive devaluation, followed by an asset bubble burst. Some large commercial banks and the entire saving bank sector had to be taken over by the government. Non-performing assets were separated and transferred to a bad bank. Public support to all of the banks was provided, but the stockholders of the bank were not expropriated and some managers remained in charge. As a result the cost was huge, 17.2% of GDP.

If you compare with Norway (it is even more compelling in the case of Denmark and Sweden) the causes were the same as in Finland except that the real shock was more an oil price decrease than the collapse of the Soviet Union as for Finland. But the symptoms were similar: three large commercial banks and two regional saving banks had to be bailed out by public funds because they incurred large losses on their loan portfolios, and as a result became under-capitalised. But the Norwegian government was tougher: it injected money only in exchange for drastic reduction in loan portfolio, import and cost cuts, and shareholders were fully expropriated, which was not the case in Finland. Of course the shareholders later required compensation because the banks were not actually closed, but they lost the case. Bank managers and directors were almost systematically replaced and as a result the cost of the crisis was much smaller, less than 3% of GDP.

So, let me try now to conclude by trying to assess the possible future of banking supervision. Let me be a little bit polemic by starting with the remark that the traditional approach to banking supervision was very paternalistic. Banks were protected from competition through entry restrictions, price controls, in exchange for accepting to follow the detailed prescription of supervisors. This approach is not viable anymore, for several reasons.

First of all, globalisation and deregulation have made competition very fierce, in particular by non-banks, i.e. firms that are not regulated. Also, the increased complexity of financial markets and banking activities implies that supervisors are not any more in a position to monitor closely the activities of all banks. This feature is illustrated by the failure of the Basel Committee to impose the standardised approach to market risks. Instead, the Committee was obliged to accept that large banks use their own internal models. It is expected that in the future few banks will follow the standardised approach, since they will probably prefer to use one of the models developed by the large banks.

The proposed reform of the Basel Accord is supposed to rely on three "pillars". A refined capital requirement with very complex weights, designed to be more in line with market assessments of risks. A more pro-active role of banking supervisors, and finally an increased recourse to market discipline. The problem is that supervisors have a general tendency to interfere too much when the banks are well run and intervene too less when the banks have problems. Too much attention in my opinion has been devoted to the first pillar, namely the design of a very complicated system of risk weights. In my opinion it is not the job of the regulators to tell the banks what they have to do when they are not in trouble. On the contrary, their job is to take care of ailing banks. Thus, I believe more attention should be devoted to the two other pillars of Basel II, namely supervision and market discipline. In particular, it should be stated precisely when and how supervisors will intervene and which instrument should be used to generate market discipline. Several US economists (for example Calomiris (1998) and Evanoff and Wall (2000)), have proposed compulsory subordinated debt. Without going into the details, let me just mention that subordinated debt is a good instrument for generating market discipline. It indeed can provide direct market discipline since the cost of issuing new debt increases when the risk profile of the bank increases, so, thus, if the bank is forced to issue subordinated debt on a regular basis, it will have incentives not to take too much risk. But there is also indirect market discipline because the price of subordinated in secondary markets decreases when the risk of failure of the bank increases. So the secondary market price of subordinated debt provides additional information to the regulator on the perceived risk of failure of the bank. But the real concern is supervision, not regulation. One needs to be sure that supervisors

impose corrective measures or even close the bank before it is too late. The core of the problem is that the bank is always worth more alive than dead. This is because the informational capital of the bank is lost in case of closure. So, even a competent and benevolent planner would always find preferable ex-post to provide liquidity assistance to a bank in distress, but of course, if this is anticipated by bankers this can be the source of moral hazard. Proper incentives can only be provided if stockholders and top managers are truly expropriated in case of problems, like the Norwegian case is a good illustration. Empirical evidence on the resolution of bank defaults suggests that failed banks are more often rescued than liquidated. For example, Goodhart and Schoenmaker (1995) showed that the effective methods of resolving banking problems vary a lot from country to country, but in most cases they result in bail outs. Out of a sample of 104 failing banks, Goodhart and Schoenmaker found that 73 resulted in rescue and only 31 in actual liquidation. This is confirmed by other studies. For example, Santomero and Hoffman (1998) showed that in the USA the discount window, that is the lender of last resort facility, was often used improperly to rescue banks that subsequently failed. So market discipline can be useful in two respects, by directly penalising the banks who take too much risk without the need for an intervention by supervisors; in directly providing new objective information, like private ratings, deal spreads or secondary prices of debt that can be used by supervisors. But market discipline is dangerous. In particular during crises market prices become erratic and diverge from fundamentals. Co-ordination failures may occur between investors whereby each of them has a good and justified opinion of the solvency of a given bank but refuses to buy its subordinated debt because it anticipates that other investors will not lend to it, this is what game theoreticians called self fulfilling prophecies. The political analysis of this was done by Morris and Shin (1998) for currency crises and later Rochet and Vives (2001) developed an extension for banking crises.

But there are other dangers of market discipline. For example, it is proposed by the reform of the Basel Accord to condition capital requirements on private ratings, but can we really trust rating agencies? They often have less information than the supervisors and sometimes even less than other banks. Secondly, the markets for ratings is not really competitive and conflicts of interests between auditing and consulting activities may occur as was exemplified by the recent Enron-Andersen case.

Finally, market discipline can be the vehicle for contagion. It could be a good disciplining device during good times, in particular subordinated debt, but it can also be a vehicle for system risk during crisis. A theoretical analysis of this is provided in Rochet and Tirole (1996). The main difficulty I believe is to obtain credibility of regulation and to get rid of political pressure on banking supervisors; The source of this difficulty is not only corruption and regulatory capture, but more fundamentally the absence of commitment power of governments. It is a classical time consistency problem, that is even more severe in the case of democracies than in the case of corrupt regimes. I therefore argue in favour of independence and accountability of banking supervisors like has been done for monetary policy. So, instead of discretionary power given to bank supervisors, sometimes referred to as constructive ambiguity proposal, I advocate in favour of an explicit mandate given to banking supervisory agencies. This is of course difficult to design and is a challenge for further research. For example, it would be useful to define objective criteria for deciding when a bank has to be bailed out for systemic reasons; and also an ex-post control accountability with sanctions on supervisors if they don't perform well.

To conclude I believe the main reason behind the frequency and magnitude of recent banking crises is not deposit insurance, is not bad regulation, is not incompetence of supervisors, it is more likely the commitment problem of political authorities who are likely to exert pressure for bailing out insolvent banks. The remedy to political pressures on bank supervisors is not to substitute supervision by market discipline, because market discipline can only be effective if absence of government intervention is anticipated. So, the crucial problem is credibility of political authorities and the way to restore this credibility is to ensure independence and accountability of bank

supervisors.

Mr Director, ladies and gentlemen, thank you for your attention.

Anthony Giddens

We've now got a certain amount of time for questions. There should be roving mikes, there are roving mikes, please any one who wants to ask a question do so and I'd ask you to speak up when you so do.

Question 1

May I ask you, sir, very broadly, do you anticipate more banking crises in the near future in view of the extraordinary activities within the last year and a half and particularly in view of the Argentine crisis?

Professor Jean-Charles Rochet

Well, it's a very difficult question and as somebody said, the forecasting is very difficult especially when it concerns the future. I must say that in the past we have observed cycles, for example in the 25 years after the Second World War there were virtually no banking crises at all, and then in the last quarter of the 20th century there was a huge number of banking crises. So, by a simple extrapolation let me anticipate that in the next 25 years we won't see any crises but they will come back later.

Question 2

I was wondering if you would please comment on your views on the consolidation of financial institutions created, such as CitiGroup and the desire for other global corporations to mimic that model? Yes, it raises new challenges in regulation. Do you feel that there is a sort of safety in the kind of capital of an institution of that size?

Professor Jean-Charles Rochet

Well, first of all I believe it's extremely difficult to resist against market forces, provided that true competition is preserved and so I believe it will be extremely difficult to impose barriers to such consolidations. But I believe that more attention needs to be focused on those large and complex banking organisations (LCBOs) as the Americans call them, and I really believe that we should have a specific treatment for those large and somewhat opaque organisations, in particular in the view of the gradual interventionism of the Federal Deposit Insurance Corporation Improvement Act in the US, which defines several levels of intervention. It is my view that the early stage of intervention should be more strict in the case of large organisation or financial conglomerates because they are more opaque to some extent. But, on the other hand, I am of the view that once you get a better picture of what's going on, you cannot neglect the natural diversification advantages of such large corporations.

So, I believe that if you know more or less what those large organisations are doing you should not be particularly worried. The main worries are about opaqueness and issues of too big to fail. Indeed if a huge international conglomerate emerges in Europe, it will probably create an immense disruption if it has problems. So, we have to be careful about this other form of moral hazard that could be generated by such a large institution. But I really believe that opaqueness is one of the major concerns about those large organisations.

Question 3

I would just like to ask you how you imagine we can, because you wanted to replace constructive ambiguity and my understanding is the purpose of constructive ambiguity is you avoid or you try

and diminish the risks of moral hazard by making it unclear when people can expect to be rescued. Now if you are going to make an explicit contract for supervisors and particularly if you, I mean you emphasise that you wanted to make it much clearer when a systematic risk problem might entail a bank bail out, how are you going to prevent institutions from knowing when they're too big to fail and acting accordingly?

Professor Jean-Charles Rochet

It's a well taken point. I understand the argument that constructive ambiguity maybe an instrument for fighting against moral hazard, but I believe that the cost is bigger in the sense that you cannot have accountability with an ambiguous system. So, I believe that this argument is more than offset, the argument that it could be useful for fighting moral hazard is more than offset of the cost which is the lack of accountability of the system, and I think that moral hazard can also be fought by other means like gradualism, like prompt corrective action, that is if you have a big institution which is presumably too big to fail, then you want to intervene much before because you are worried that things might go wrong very fast. So, I believe that the correct answer is prompt corrective action.

Question 4

Are you surprised at the absence of a banking crisis in the disruption following September 11th and the deterioration and recently a number of large corporate entities like Enron came out, Marconi, etc.?

Professor Jean-Charles Rochet

No, it's true that we could have imagined a worse situations and in particular I was more worried of the reinsurance sector rather than the banking sector, because as you know the insurance business is organised in a different fashion in the sense that you have a hierarchical system where a direct insurers are insured by reinsurers, and only direct insurers are subject to solvency regulation and supervision. So, I believe it's even more worrying in the context of the insurance industry that you have these huge reinsurers that are virtually under the control of no single institution and it is true that an event like September 11th could have triggered the failure of a big reinsurer and we would have been in real trouble I believe. So I was really surprised to see that apparently only small reinsurers failed and no more damage to the insurance industry.

Question 5

I think your answer begs another question, namely why has the commitment problem of governments become worse in recent years if your analysis is correct that banking crises have become more frequent and worse in the last years. At least in the EU it should have become less because the EU, the Commission can punish you for illegal government subsidies.

Professor Jean-Charles Rochet

Well, it is true that the outside conditions have changed, in particular the deregulation, globalisation have changed the nature of risks and also the status quo that was prevailing before, namely, protection from competition by a banking authority in exchange for compliance to the desire of the supervisors; This has broken into pieces and so the lack of commitment of political powers is not the only explanation of course to the banking crises. But, my view is that it has probably amplified the magnitude of those crises, and that they would probably have occurred in any case but could have been limited immediately and probably the repetition of crises in certain countries could have been avoided. So, I am not saying it's a unique explanation for banking crises I'm trying to be a little more polemic because what you hear usually is deregulation, safety net and deposit insurance and all kinds of things. I believe these are partial explanations but the true explanation which is not emphasised is really this lack of commitment power. I want to insist on the fact that even in a democratic country functioning very well with no corruption, no lobbying or interest groups, the problem arises. So, it's I believe a genuine difficulty.

Question 6

You talk a little bit about making supervisors becoming independently accountable. Given the increasingly global nature of financial markets, who would you see them being accountable to? Who would you see actually policing their adherence to the objectives being sent?

Professor Jean-Charles Rochet

Well, I believe to the legislative authorities, although I have not actually thought in detail about the question given that I'm not a specialist of law. I think the additional complexity of markets and banking activities does not limit the role of banking supervisors but that market discipline has to be an important complement. I don't really see why the complexification changes the difficulty of the time consistency problem. It changes the nature of the mandate and the agenda, which has to be set in sufficiently simple terms that it can be checked ex-post, but it doesn't change, I believe, the type of reward and penalty mechanisms that have to be implemented.

Question 7

Just wanted to ask you one question. The banks today have become multi-national whereas the supervisory boards are all pretty much national or regional levels. Do you see this as an inherent problem in the future?

Professor Jean-Charles Rochet

Not necessarily, let me take the example of the European Union where supervision is at the national level. This has been criticised for the limited possibility of the system to react promptly in case of a major crisis, but I believe there is some positive aspect to it, namely the possibility of competition between supervisors because constituencies are able to benchmark the performance of their supervisors as opposed to that of other regions.

Question 8

To what do you attribute, professor, the fact that the UK is virtually one of the only major world economies that has not suffered a banking crisis?

Professor Jean-Charles Rochet

Well, it is true that on the map that I showed, the UK was in white, but on the other hand I gave several examples of minor crises which show that the UK was not totally protected from those. I believe that my talk has exemplified the leading role of this country in the design of central banking organisations and supervision: in some cases the UK has been the first to experiment with new regulations or new systems with somewhat certain success but also in some cases some relative failures.

Anthony Giddens

Well, let me just say what a pleasure it is to have Professor Rochet here this year and ask you to thank him for his thoroughly absorbing lecture.