This crisis is accurately described as the worst financial crisis in seventy five years. Some say it is the worst financial crisis in a century, that is to say, including the Great Depression. We are probably not yet there, although we seemed to be heading in that direction until the IMF/World Bank meetings on the weekend of October 10-11, when the G7 and then the IMF agreed on a strategy – essentially that developed in the UK – to deal with it.

This is not so far the worst economic crisis in seventy five years. But we have yet to see the full effects of the financial crisis on the real economy, and we may well reach the point where unfortunately we will have to say that too about this crisis. The economic situation has worsened markedly and rapidly in the last few months, as a result of both the financial crisis and the energy price rises that took the price of a barrel of oil to nearly $150, but we still do not know just how serious the overall crisis will be.

Further, and important to note, the extent of the crisis is not yet determined. It will be determined in part by future policy actions, both by countries at the center of the international system, and by those in the periphery.
I will briefly discuss three questions about the origins of the crisis and the steps needed to deal with it presently and in the future. In discussing the third question, I will focus on the reform of the IMF.

First, there is a set of questions about how this happened. Second, what measures can be taken from now on to minimize the extent and the depth of the current crisis? Third, although crises will always be with us, we need to ask what can be done to reduce the probability and the extent of future crises.

By now the major suspects for the causes of the current crisis include (i) failures of regulation, particularly in the United States, particularly in the writing of mortgages and their securitization; (ii) the proliferation of sophisticated derivative-based financial instruments, many based on mortgages, whose risk characteristics were not fully understood; (iii) the housing price bubble in the United States, to which both of the preceding factors contributed; (iv) inadequate risk management within financial corporations; (v) inappropriate methods of compensation in financial corporations that contributed to excessive risk-taking; (vi) the charge that monetary policy – particularly in the United States – was excessively expansionary from 2003-2006; and sometimes, (vii) that international imbalances played an essential role in generating the problem. Rather than systematically discuss these factors, I will make a few points about the increasingly received wisdom.

Rightly, we focus on the major failures of supervision in the American and other financial systems. Things were done that should not have been done and that should have been stopped by regulation. The failure to stop them was one of the most important causes of the present financial crisis. In addition, the United States never took serious account of the dangers posed by its regulatory system. Following the Asian crisis, the IMF and the World Bank developed an excellent program, called the FSAP – Financial Sector Assessment Program – in which an international team of regulators and other experts in the relevant fields visits a country and provides a complete evaluation of the state of the financial system. The program is voluntary, but nonetheless most G7 countries have had one. The US refused, in part because they seemed to believe the IMF is for other countries, in part perhaps because they knew what the FSAP report would say: that the American system of financial supervision was not coherent and had to be fixed. For instance, there are at least 54 different supervisors of banks, 50 of them at the State level, 4 at the Federal level. Each state has its
own insurance regulator, and there is no national regulator. All of this has been well known for a long time, but the problem was not attended to.

But the financial regulator is not in the best position to regulate individual firms. In his speech this morning, Onno Ruding mentioned the failures of risk regulation within firms. If anybody has to get risk control right, it is the risk controllers within a financial corporation. The people who work inside a company know far more about what it is doing than the regulator can possibly know. A good external regulator – and the Fed regulators I encountered while working in the financial sector were very good indeed – can see many things that insiders do not see, and can contribute importantly to controlling risks. But the risk management issues are fundamentally internal. I don’t think from my limited experience in the private sector that the internal risk managers I met were not technically proficient. What was lacking, in the case I’m aware of, was somebody taking a system-wide view of the risks that were being faced, someone with the capacity to ask tough questions about the possibility of radical changes in the market environment.

There were not enough people with grey hair asking the broader questions about the risks that were being taken. There is a very sophisticated field in financial economics of portfolio management, which is an essential element in risk control. Its implementation requires massive statistical calculations and stress testing – things that were done well, within the context of a set of assumptions about the overall market environment. But people didn’t step back and ask the questions about what could really go wrong, in a big way. That was in large part a failure of internal risk management. And risk management within firms will need reform, no less than does the reform of the external supervisory framework.

We are often asked how come we did not see this crisis coming? Well, there is a lot hidden in the “we”. There were many people who saw this crisis coming. There was even an institution which saw the crisis coming, namely the Bank for International Settlements (BIS), which consistently pointed to the dangers of many aspects of the financial system that lie at the heart of the current crisis. The right question is not “why didn’t we see this coming” but “why didn’t we decision-makers take account of those warnings?” This is a question that

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arises in every case of an intelligence failure, and not only in the financial sector. It is of course the sort of question that Israel faced following the Yom Kippur War. I’m not sure how you deal with these issues – which no doubt have been intensively studied by the intelligence community – but part of the answer must be that you have to be much more suspicious and much less trusting of your instincts and your mindset than we all tend to be, while at the same time realizing that an economy cannot grow if no-one takes risks.

Although this crisis is generally and correctly blamed on events in the United States, there were also home-grown elements in some of the crisis countries, particularly in the United Kingdom, Spain and Ireland, which contributed to the rout of the real estate sectors in those countries.

Next point: we are fortunate that the Chairman of the Fed is a student of the Great Depression. Ben Bernanke's thesis was on the topic of the propagation of the Great Depression and the conclusion he reached was not that the Great Depression became “great” because money supply was not kept growing sufficiently fast, but because the credit mechanism broke down entirely. In February 1933 several states declared banking holidays, and in early March incoming President Roosevelt closed the entire banking system for over a week. Almost a third of the banks in the United States never reopened following the national banking holiday. It took many years for the credit mechanism to revive.

A few weeks ago Chairman Bernanke went to the Congress, following the failure of the first attempt to pass the TARP (Troubled Asset Relief Program) proposal, and warned that the American credit system was within days of freezing up. He knew better than anyone what could happen and what might happen in a situation as fraught as the one the Fed and the administration are dealing with. It is clear that the extraordinary actions that the central banks have taken in this crisis would not have happened without an understanding of what happened in 1929 to 1933. Almost every central banking rule has been thrown out of the window in terms of the types of loans that are being made by the Fed and by the Bank of England, and to less of an extent by the ECB. That is being done to try to keep the credit system operating, to try to minimize the decline in credit provision that we are going to see in the months ahead – that is, to deal with the credit crunch.
There is an inherent difficulty in this area in that you want the banks to lend more but at the same time you don’t want the banks – which are likely already carrying larger risks than they would like on their balance sheet – to add excessively to their risks. This is a problem for which there is no simple solution. One way to deal with it is by state subsidies or guarantees for loans. That will likely be done in a large number of countries, at least for small and medium scale enterprises.

Finally, with regard to the causes of the crisis, I note for the record that I do not assign as great a role to the low interest rate policies of the Fed in the lead-up to the crisis as do many analysts. The relatively low interest rates in the period leading up to the crisis were in part a result of the high level of global saving, related to the massive surplus in the current account of China, an issue to which I will come shortly.

With regard to what can be done to minimize the costs of this crisis from now on, governments have at their disposal monetary policy – which is rapidly moving to reduce interest rates – and a host of financial interventions that the central banks and governments are now undertaking, including those to deal with the credit crunch. That is, governments have to continue to struggle to contain the financial crisis, in order to restore the operation of the financial system, most importantly the credit system. That is essentially the first phase of the crisis. In addition, we are now seeing more and more of the real consequences of the financial crisis, in the rapid declines in GDP growth and the onset of recessions in many of the advanced countries. Governments can and will use fiscal policy to try to replace some of the private demand that has declined as a result of the financial crisis and its ramifications. Their ability to do so will be in significant part determined by the cost of financing the larger budget deficits that are now en route. Those countries with large debt-to-GDP ratios, or whose government obligations are for whatever reason less attractive to investors, will have less ability to widen their budget deficits and thus to use fiscal policy actively.

With regard to the issue of what can be done to reduce the extent of future crises, much depends not only on what is done in the international system, but also on what is done domestically. In no area is this more important than in the reform of financial regulatory systems. Most – but certainly not all – of the work in this area has to be done in the domestic economy, or, in the case of Europe, at the intra-EU level.
The issues of the reform of the international financial architecture will be on the agenda in Washington, DC a week from now. They are unlikely to be resolved but one hopes that progress will be made, or at least that a framework and timetable for future work will be agreed. I want to discuss five interrelated issues that are central to what happens in the reform process.

The first issue is the surveillance – the “mutual persuasion” of macroeconomic policy i.e. the coordination of policies among countries within a system in which what one country does can have a major impact on other countries and on the system as a whole. Secondly, the surveillance of financial systems and their supervision; thirdly, the closely related issue of surveillance over international capital flows. The fourth is governance – who runs these institutions? How can we get countries to feel they belong and to act accordingly? And fifth, lending: what happens when a crisis takes place and there is a need for loans to be made?

On the issue of surveillance over macroeconomic policies – surveillance that is designed to influence country policies – which is one of the key functions of the IMF, this has proved difficult within the treaty framework of the European Union, and even within the European Monetary Union. It is even harder to get countries not within such frameworks to agree to adjust their policies in light of the effects of their decisions on the economies of other countries. It does not much matter to the global economy if a small country uses the international system to its benefit without taking into account the system-wide impact of what it does. For instance, if a small country decides that it wants to follow an export-led growth strategy and maintains a significantly undervalued exchange rate, that doesn't make much difference to most countries in the world. But if a giant country decides that it wants to follow an export-led strategy to growth and maintains an undervalued exchange rate, then that may have significant global implications. That is what happened in the case of the Chinese exchange rate in the last few years.

The IMF was set up in part, and its rules were designed, to deal with the asymmetry between the ability of the international system to discipline those countries that run deficits in their balance of payments and those who run surpluses. This is a result of the pre-war experience in which France may have been on the side of those who, for a while, ran surpluses at the expense of others. If you run deficits in your balance of payments, at some point you get into trouble, so you are going to be disciplined. If you run surpluses all you do
is to continue to build up your reserves. If you are willing to keep doing that, you can keep going with that strategy forever, or at least for a very long time. But that surplus is reflected in deficits somewhere else in the system. In this crisis, that was reflected in the United States’ current account deficit which was pretty large and unsustainable even before the price of oil rose to nearly $150 dollars per barrel. But in any case, the U.S. deficit became unsustainable after the price of oil rose to historically high levels.

The international system had no way, and still has no way, of getting agreement on how to adjust to the problem of the Chinese current account surplus, or to the problems of large current account surpluses of other countries.

What can you do about this phenomenon? You can try to make the system more resilient, which is what the move to floating exchange rates did as the original Bretton Woods system collapsed. You can call for consultations and for stricter IMF surveillance, and you can raise the issue at every opportunity that there are inter-governmental discussions. But you can’t force a country to float its exchange rate. In fact, the amended IMF Articles of Agreement say that it’s up to a country to choose its exchange rate system.

What can you do? One possibility is to give the relevant countries a greater sense of responsibility for the international economic system, and you do that by giving them a greater role in running the system. In doing this, though, we have also to recognize that no country, including the United States, is going to put all the focus in its mutual relations with a major country on the issue of the management of their exchange rate. Nobody, including the United States, is going to base all its relations with a country as important as China on the exchange rate issue, however important it may be. So, we don’t really have a good way of dealing with the problem of the asymmetry of the adjustment pressures on deficit and surplus countries respectively.

The second issue is that of the surveillance and upgrading of financial supervision. In the first place there is a need to upgrade financial supervision at the national level. Following the establishment of the Financial Services Authority (FSA) in the United Kingdom in 1997, as the single supervisor of the entire financial system, many different national models have been developed. Generally a distinction is drawn between prudential supervision, the supervision over risk management by financial institutions, and conduct of
business supervision, which relates to consumer issues and those issues often supervised by the securities markets regulator, including corporate governance.

There are many different supervisory models. The approach we in the Bank of Israel have been promoting during discussions of reform of the supervisory system is the Dutch model, in which prudential supervision over the entire financial system is in the hands of the central bank, whereas the supervision of conduct of business is in a separate organisation outside the central bank. Considering the amount of time that the bank supervisor in Israel, who is located in the central bank, has to devote to consumer issues, such as the banks' charges for check-clearing, I am in favor of leaving the conduct of business supervision to another body, and having the bank supervisor concentrate on the supervision of risks and risk-management within the financial system, which is critical to overall financial stability.

The question of whether financial supervision, or some parts of it, should be located in the central bank, or rather separated from the central bank, is controversial. Following the establishment of the FSA, it became fashionable to argue for complete separation. I do not believe that is the best approach. Certainly, in managing the current crisis we have gained enormously from having the banking supervisor at the table with us throughout, playing an integral part in every discussion, with all the data as needed. Those who have not worked in bureaucracies might argue that all this can be achieved through better coordination. The world does not work that way. Information flows between organizations are simply less efficient than those within organizations. Decision-making that has to be coordinated between organizations is slower and less clear-cut than when the decisions are made within a single organization. It is very likely that prudential supervision will return to central banks when the lessons of this crisis are drawn.

In reforming financial sector supervision, there is also the issue of supervision and coordination at international level. As Jacob Frenkel said this morning, the great financial institutions are – or at least were – global, and supervision is not. What is required is a considerable measure of cooperation and coordination. Coordination among supervisors has taken place in the context of the Basel Committee for banking supervision, and more recently in addition through the Financial Stability Forum (FSF). The FSF is a forum in which the regulators of all the financial institutions (insurance, banking, capital markets) meet, discuss issues, and make recommendations.
Originally the FSF included the regulators of G7 countries, and a number of international institutions. Now it has added other countries. This structure makes for efficient discussions within a (relatively) small group of countries. It was developed in part to keep the IMF out of this business. It would have been far better to have the FSF more closely associated with the Fund, which has the legitimacy of being a global organization based on a treaty, rather than a self-selected body that develops recommendations among a small group of countries. This is not to under-estimate the value of the recent work of the FSF. The FSF report produced in April 2008 under the leadership of Mario Draghi, chairman of the FSF, Governor of the Bank of Italy, was an excellent first report on the conclusions to be drawn from this financial crisis. But once conclusions have been drawn, they need to be implemented in the international system. That is what the IMF can do. I am very pleased to see that in the run-up to the G20 conference the Europeans are arguing that the FSF should be somehow associated with the IMF: that would be a much more effective system for international cooperation and coordination on financial sector supervision.

The third issue about the reform of the IMF is that of surveillance over capital flows. In 1997 in the annual meetings of the IMF and World Bank in Hong Kong – at a time when the Asian crisis was beginning to intensify – the IMF under British leadership and with the strong support of then Managing Director Michel Camdessus pushed for an amendment to the Articles of Agreement, to give the IMF the authority to conduct surveillance of capital flows as well as of the current account of the balance of payments. Subsequently there has been a great deal of critical rhetoric along the lines of promotion of "a headstrong rush to premature capital account liberalization". If there was one adjective that was used in making the argument about the capital account liberalization we were pushing for, it was “gradual”. The word “gradual” was emphasised all the time. There was never any thought that the IMF would insist that countries liberalize capital flows immediately. Rather we believed – and I continue to believe – that gradual liberalization of the capital account, conducted within an understood framework, is the best way for countries to improve their financial systems through integration into the global system.

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2 The FSF members are Australia, Canada, France, Germany, Hong Kong SAR, Italy, Japan, Netherlands, Singapore, Switzerland, United Kingdom, United States, international financial institutions (IMF and World Bank), the ECB, and international standard setting, regulatory and supervisory groupings
Let me give you two examples of how not to liberalize capital flows. In 1997, two countries that got into crises were Thailand and Korea. While there is never a single reason for such crises, an important contributing factor was that both countries liberalized short-term capital flows and did not liberalize long-term capital flows. Implicitly, they encouraged “hot money” to come in, and they did not encourage “cool money” to come in. And then, as the economic situation deteriorated, the hot money did what hot money does, it left, and then the two countries got into deep trouble. These decisions were not made under IMF urging, although that charge has been made. I believe that if capital account liberalization – *gradual* capital account liberalization – had been among the missions of the IMF, the liberalization would have been done better. In any case, it is time to get on with this issue.

Fourth, on the governance of the Fund: it is well understood that the voting shares within the Fund need to be adjusted to reflect the changing structure of the world economy. The current structure of voting shares – Fund quotas – is not very conducive to international tranquillity, because every time the quotas are changed the new quotas are an average of what they were last time they were changed and what they should be today. That is because the distribution of votes at the time a decision to change the shares is made is that of last time, and the countries whose shares are supposed to go down generally do not want that to happen. Given that the IMF has been and is a European-dominated (and American) institution, the voting shares are still quite far from where they should be to reflect the changed distribution of economic power in the global system, which should give a bigger weight to Asia and to other emerging market countries.

In this regard, let me mention a point that may be of some difficulty in this (Trilateral Commission) forum: the European problem. The problem is that eight of the 24 seats in the IMF Board are held by European countries. Reform of the quotas will be slow and difficult until Europe decides how it wants to be represented. For instance, Belgium and the Netherlands have separate seats. Both make important contributions to the discussion in the Fund Board, and have been generous in their financing of the IMF and the World Bank. Israel is a member of the Dutch constituency, and we highly value that membership and the high quality of the representation. Still, Europe does not need that many seats. There was one day when I was in the Fund that France and Germany announced that they would combine their chairs, which would have been an excellent move. The next morning, it turned out the announcement had been a mistake – possibly the musings of some idealist had been
committed to paper and transmitted prematurely. In any case, this issue needs to be dealt with: if Europe can get itself down to two or three chairs, then reform of quotas and representation in the IMF will become much easier.

With regard to governance, I want to turn to a slightly different issue which is “Which countries in practice run the IMF?”, or equivalently, “Which countries run the global economy?” Fred Bergsten has called this the issue of the Executive Committee. It is difficult to run an organization with 186 members if you have to consult with each member on every decision that needs to be made. You need somehow to operate within a smaller group. At the time that Michel Camdessus and I were there, that group was the G7. If something needed to be done, you generally spoke quietly to the G7, which accounted for about 40% of the vote. (Occasionally the management would try to do something that some members of the G7 opposed, but that is a story for another time.) If you had the G7 on board, you basically had an agreement at the end of the day. But the G7 is not any longer very representative, and the world is trying to move beyond the G7.

The G20 contains most of the systemically important and or large countries. But the G20 is probably too large. The so-called executive committee has to be smaller, and the question will be “who is in it?” Those involved in reforming the United Nations will of course recognize that this issue is very similar to that of who should be in the Security Council. In the case of the IMF, it will be difficult to get to much less than 10 countries, but here small – a small group – is beautiful: perhaps a grouping such as the United States, two European countries, China, India, Russia, Japan, one or two Latin Americans, a leading Arab country, and South Africa. It will take many years until the G7 is replaced, but the direction is clear.

One other seemingly small issue: you need a convenient place to meet. The IMF is very good at convening meetings, but Africans, Asians and Europeans find Washington a long way away. My guess is that the convening power of the IMF will be greatly enhanced if it creates a convenient meeting place in Europe – probably by enlarging its Paris office.

Finally, turning to lending in crises. I need to start with some central banking doctrine, that of the lender of last resort, an analysis developed in the nineteenth century, most notably in Bagehot's *Lombard Street*. The doctrine set out there has been developed to the
point where when you consider what to do with a financial institution in difficulty, you ask whether its problem is one of liquidity or of solvency. If the institution is basically sound but is having temporary trouble in borrowing, then its problem is liquidity, and a central bank loan will enable it to work its way out of the difficulty. If the bank is fundamentally insolvent, then it needs to be reorganized, probably recapitalized, changing the management, sometimes having it merged, sometimes dissolved. That is a very nice and essential distinction, a critical guide to decisions. But when you are sitting in the middle of a crisis, you frequently do not know whether the problem is one of liquidity or solvency, and you need to make decisions on the basis of your best judgment as to which it is, act accordingly, and leave the final judgment to history.

Bagehot’s point was that every system needs a lender of last resort, an institution to provide credit when the credit markets seize up, as they do from time to time. In his book the lender of last resort was the Bank of England. In the international economy, with respect to countries rather than financial institutions, the IMF carries out some of the functions of a lender of last resort. But the IMF’s resources are much too small now to deal with the whole system. The IMF has about $250 billion available for lending, and it is clear that will be far from sufficient – to deal with this crisis the Fund will need access to much larger sums.

However, the IMF as lender of last resort has a problem: it cannot print money. Central Banks are institutions which, by writing down something on a piece of paper or in a computer, create money. That is why a central bank is different from other financial institutions, and why we need institutional arrangements – such as central bank independence – to keep governments from using to excess the power to create money. The IMF can create liquidity in the form of Special Drawing Right (SDRs), but getting approval to increase the supply of SDRs requires going to the parliaments of member countries, and thus is not a power that can be used rapidly, in a crisis.

Now to bring all this together. In this crisis the Federal Reserve has made loans in the form of swap lines to twelve other central banks, including to the central banks of four emerging market countries: Brazil, Korea, Mexico and Singapore. These arrangements provide short-term dollar loans to the recipient countries, that is, they provide international liquidity. In providing such loans the Fed must take account of whether the country in question faces the equivalent of a liquidity or a solvency crisis. There is no clear definition of
what these terms mean in the case of a country, but one useful definition is that a country facing a liquidity problem does not need to make major changes in policy, whereas a country facing the equivalent of a solvency crisis does.

Possibly we are now moving towards a system in which the Fed and other leading central banks will help deal with international financial crises by providing liquidity in the form of swap lines to countries facing a liquidity problem, while leaving the Fund to deal with countries that face a solvency crisis, one that requires the country to make serious changes in its policies. This would be done in the context of an IMF program between the country and the Fund, in which Fund assistance is made conditional on the country's implementing the policy changes needed to deal with its crisis. I believe the Fund has to be involved when conditionality is needed, and I base that judgment on what happened when the Clinton administration, facing its first international crisis, at first decided it would impose its own conditionality on Mexico. Then it discovered how problematic that was in the context of its overall relations with Mexico, and turned the Fund, which has international legitimacy in this area.

The central banks may also be active in providing funding for the Fund's programs, through the GAB (General Agreement to Borrow) and NAB (New Agreement to Borrow), arrangements that enable the Fund to call on member countries for supplementary funding of a program. This funding generally comes from the central banks. These arrangements could be expanded.

One of my great teachers, Professor Charles Kindleberger, used to say, “the international financial system doesn’t work unless somebody takes the responsibility for it”. In much of the 19th century, the Bank of England did that, sometimes together with the Banque de France. Then the responsibility moved over to the Fed, which handled the task with circumspection. Perhaps we are now moving into a period in which the Fed and other central banks will take that responsibility on board more fully and explicitly, in developing the new international financing architecture.

The system to which we seem to be moving, and should be moving, is one with strengthened financial sector supervision, including improved international coordination of financial supervision, with a strengthened IMF, one with more financial resources, one whose
membership shares will be more representative of the current economic power of its members, and one that should have a much bigger role in improving the supervision of national financial systems and the international financial system. It may well be a system in which central banks will be more active in providing liquidity to countries in liquidity crises, and perhaps to supplement Fund resources when a country faces a solvency crisis.

Remaining to be resolved is the issue of how to deal with a country whose policies are causing serious economic stress in the international economy, generally because of the asymmetry between the incentives for countries with deficits and surpluses in the current account of the balance of payments to adjust. There will be difficulties in getting countries to agree on changing the distribution of power in the international institutions. It will take time to change the inner group of countries that in effect takes responsibility for running the international economy and the international institutions. And all along the way, there will be the fact that no country wants to give up its freedom of action on almost any issue, least of all the big countries. But that will need to be done if the international economy is to become stronger and less subject to crises.