International Financial Architecture: the Central Bank Governors' Symposium 2002

By Peter Sinclair,[1] Director, Centre for Central Banking Studies.

The Central Bank Governors' Symposium 2002 examined the architecture of the world's financial system. Horst Koehler, Managing Director of the IMF, and the Bank of England's two Deputy Governors at the time, David Clementi and Mervyn King, gave the main addresses. This article summarises what they said. It also gives a precis of eight background papers provided for the occasion. Taken together, these eleven contributions explore general aspects of the international financial architecture, as well as discussing how financial crises may be contained or prevented, and best resolved when they do occur.

The Symposium

The Central Bank Governors' Symposium 2002 took place at the Bank of England on Friday 5 July. The Governor opened the symposium. There were three main speakers: Dr Horst Koehler, the Managing Director of the International Monetary Fund, and the Bank of England's two Deputy Governors at the time, David Clementi and Mervyn King. The subject this year was 'International Financial Architecture'. Their speeches, and the set of background papers assembled for the event, explored various aspects of this topic. This summary has grouped that material into three sets. The first set includes overviews from the IMF and the BIS, a salutary lesson from history, and a sketch of some germane international economic issues. The second set concentrates on how financial crises may best be contained and prevented. And the third looks at how they should be resolved. Horst Koehler's paper led the first set, David Clementi's the second and Mervyn King's the third.

The Governors of the Reserve Banks of India and South Africa, and the Prezes of the National Bank of Poland, acted as discussants. They provided comments on the three speeches and the background papers. A lively debate ensued. Dr Koehler gave robust, frank and detailed answers to numerous questions from the assembled Governors and heads of delegation. Fifty central banks were represented at the symposium, which had been preceded, as usual, by a high-level workshop organised by the Bank of England's Centre for Central Banking Studies. This year the workshop was devoted to the challenges faced by central banks, and the role played by the Centre's training and collaborative research in helping to meet them.

Overview contributions

Horst Koehler began his address by outlining how the IMF had amended the architecture of the world's financial system in the five years since the onset of the Asian crisis. The IMF was promoting transparency in member countries, and was now publishing most country documents. Surveillance and assistance for preventing crises, and loan facilities for resolving them, were being sharpened. Conditionality was being streamlined, and members urged to assume fuller responsibility for and ownership of programmes of reform. With other bodies, the IMF had established new codes and standards and Financial Sector Assessment Programmes (FSAPs). And measures against money laundering and the finance of terrorism were being strengthened.

The future stability and growth of the world economy, Dr Koehler argued, depended above all on four factors. These were medium-term budgetary balance in the United States; much needed structural reform to support faster expansion in Europe; deregulation, restructuring and swifter disposal of non-performing loans in Japan; and stronger institutions and greater income equality in Latin America. Fighting world poverty underscored the need for more and freer trade, not less. Safeguarding the world's financial system

(1) I should like to thank Sir Edward George, Bill Allen, Charlie Bean, Alastair Clark, David Clementi, Andrew Crockett, Andy Haldane, Andrew Hauser, Simon Hayes, Mervyn King, Mark Kruger, and Hyun Shin very warmly for illuminating discussions and helpful comments, but to exculpate them from any errors.

required stronger accounting and disclosure procedures in the United States and elsewhere. Successful crisis resolution needed debtors and private creditors to assume full responsibility for risks, as well as improved techniques for judging debt sustainability, clearer limits to Fund lending, and new devices to facilitate an orderly restructuring of debt when crises hit. Horst Koehler ended by thanking central banks for participating in FSAPs, adopting codes and standards, and maintaining the prudent policies on which the success of the IMF's work so much depended.

For Andrew Crockett (General Manager of the Bank for International Settlements), 'international financial architecture' had two aspects: rules governing all economic and financial contacts between countries, and the institutions where those rules were set, monitored and applied. Noted achievements since 1945 had been the multilateral approach, and the great liberalisation of trade. Changes included the spread of floating exchange rates, the replacement of administrative controls by market-driven processes for balance of payments adjustment and liquidity, and the growing involvement of more national authorities, and the private sector, in the work of the IMF and the World Bank.

The division of tasks between national and international bodies needed some rethinking, Andrew Crockett advised. Financial supervision was a national responsibility and should be recognised as such. Policy-makers needed to look carefully at the degree to which private markets acted efficiently and without undue turbulence. Sound public finances and transparency were critical for preventing and containing financial crises, which, in 18 recent cases, cost victim countries an average of 22% of a year's GDP. To stop repetition, financial markets needed to become deeper, broader and more resilient; accounting standards less diverse; corporate governance and insolvency procedures improved; law enforcement fairer and more coherent; and payment systems strengthened.

Resolving crises called, in his view, for creditors' governments not to finance private creditors' withdrawal from troubled debtors. Private creditors must be fully involved in crisis resolution, and discussing the form this should take was a priority. The Financial Stability Forum had a key coordination role for national regulators, but should not replace them. Another priority was the creation of an institutional mechanism for involving the private sector in the work of the IMF.

What lessons did history provide about financial crises? The usual view was that crises often began with a weak bank, and the panic that triggered a run on it and maybe other institutions. But crises could develop in other ways, and in circumstances where all parties regarded their positions as absolutely safe. Isabel Schnabel (University of Mannheim) and Hyun Song Shin (London School of Economics) explored the details of the North European financial crisis of 1763, centred in Amsterdam, Hamburg and Berlin, and the disturbing resemblances it bore to the collapse of Long-Term Capital Management 235 years later.

Events in 1763 provided a salutary reminder, they argued, of some valuable principles not well or widely understood. One was that a connected lending chain could not eliminate all risks, even if every participant in it deemed herself to be fully hedged. There were unsuspected knock-on effects from the failure of one party to meet obligations; credit and counterparty risks were correlated, and increasingly so in the event of trouble. Too much pressure on one link could set off balance sheet contagion, and cause all the other links to snap too. Today's parallel upward trends in many agents' gross assets and liabilities, coupled with direct and indirect counterparty risks, off balance sheet items and the proliferation of potentially perilous derivatives, made the task of quantifying true exposure an extremely challenging one.

The problem in 1763 had been compounded by a second phenomenon, clearly as visible then as it would be today. This was liquidity risk. If one market participant tried to meet obligations by selling a seemingly liquid asset they all held—in 1763 this was grain—its price could tumble, suddenly and unexpectedly lowering the net worth of others in the chain. Dangerous and pervasive as the events of 1763 had been, they did not constitute a Pareto deterioration; Amsterdam's woes were instrumental in securing the growth of London as the world's leading financial centre.

The dynamics of inflation and debt in an open economy were the first topic explored by Peter Sinclair (Director of the Centre for Central Banking Studies at the Bank of England). Under foresight, and if undisturbed, these two variables should drift in the same direction towards long-run values pinned down by fiscal policy parameters, growth, real interest rates, and deficit-financing patterns. He adapted a paper of Fry and Sinclair (2002) on this to allow for an open economy with a freely floating

exchange rate.(1) Revised expectations about fundamentals caused the price level and the exchange rate to jump up or down. The time profiles of inflation and the exchange rate depended on bond maturity, currency denomination and indexing (if any). Ambiguity about future fiscal policy was inflationary in its own right. Changes in expectations surrounding this, coupled with any official resistance to allowing exchange rates to respond to them, could be the surest recipe for a financial crisis later on. Argentina's recent crisis, described most recently by Powell (2002), was but the latest example of this.

Sinclair went on to argue that there were valuable gains from opening up capital trade across national borders, gains similar in character to those from constructing domestic financial markets. He concluded with a suggestion for modifying models of consumption and capital accumulation that enabled one to pin down plausible trajectories for countries' net claims on each other, avoiding the unpalatable conclusions of some conventional models.

Contributions on crises and how to prevent and contain them

David Clementi began by emphasising how costly financial crises were, in terms of lost output, added government debt and maybe subsequent monetary disorder. His main focus was on crisis-prevention measures, and recent progress made.

He advanced three propositions. The first was that recent crises underscored the vital need for sound economic and financial management, and appropriate policy design. Proposition two was a plea for following up vulnerability assessments of countries' finances with a continuing process of monitoring and managing macro financial stability threats. The third proposition centred on the crucial need for the successful engagement of private sector investors with crisis prevention initiatives.

Central to proposition one, David Clementi argued, were the twelve standards that the Financial Stability Forum had identified as paramount, including, in particular, those relating to transparency in both policy and data. More transparent credible policy implied lower risk premia in the markets. Accountability made for better policy. And good and timely data provision reinforced both. Constructing and publishing more comprehensive balance sheets for nations and for the main sectors within them—households, non-financial companies, financial institutions and government—was an important priority.

For David Clementi, one lesson of Enron's collapse was that even the most advanced countries must look closely for possible holes in their defences against financial stability threats. The type of control system appropriate for some countries may not always be best for others.

Turning to his second proposition, David Clementi highlighted the benefits of FSAPs and Reports on the Observance of Standards and Codes (ROSCs). The United Kingdom, he noted, was currently undergoing an FSAP of its own. But there was no unique blueprint. Financial authorities needed to monitor financial stability proactively, he argued, and to assign a high priority to improving their mechanisms for safeguarding financial stability in the face of financial innovation and structural change.

Third, he argued that the full benefits of crisis-prevention policy could be obtained only if best-practice economic management by policy-makers were met by best-practice risk assessment by the private sector. Policy-makers could help through appropriate regulatory design. But the private sector needed to make better use of information on macro financial positions if a strong link between economic and financial management and the cost of capital were to be ensured.

Peter Sinclair, in his summary background paper, maintained that abolishing financial crises was like abolishing sin: a worthy principle, perhaps, but also a utopian dream. Much like crime, pollution, and unemployment, financial crises were to some degree inevitable. And like them, good policy should seek to limit their gravity and frequency. Economists could even think of an optimal incidence of financial crises: costly as they were, the expected marginal cost of truly eliminating them, even if it were feasible, could be enormous, far above the marginal benefit. International financial crises could probably be stopped, for example, by a simple expedient. Suspending currency convertibility and banning all international capital movements, on pain of death for convicted offenders, would surely achieve this. But the costs in terms of

(1) The official IMF classification of countries according to exchange rate system has recently been questioned by Reinhart and Rogoff (2002).

misallocated world capital, and cross-country risk-trading forgone, stressed for example by Sinclair and Shu (2001), would be simply prohibitive.

A debtor typically had not just one creditor, but several. This was true of individual borrowers, and truer still of sovereign states. When trouble arose, creditors needed to be induced to act in concert. This was no easy task. Delay and discord made speedy renegotiation impossible. Workouts became disorderly. Financial assets were liquidated too early. The costs of this were deadweight. Prasanna Gai's (Bank of England and Australian National University) paper explored these ideas.(1)

Creditors could be brought to coordinate in several ways. Prasanna Gai mentioned country clubs, swap arrangements, liquidity management and payments standstills as four practical devices to achieve this.

What role did official intervention play? For him, the IMF had two functions: whistleblower, and fireman. It could stop play if it thought the borrower was cheating, falsely claiming insolvency. That was strategic default. As fireman, the IMF could rescue the project from some of the damage capital flight brought through official finance.

The net benefit of having the IMF play these roles turned on the accuracy with which it could perceive the borrower's true financial position, the cost of creditor non-coordination (the damage from premature flight), and the IMF's ability to limit that damage. Often net benefits were positive. But they need not be, particularly if its monitoring ability was low when its efficacy in limiting the cost of creditor flight was high, triggering moral hazard problems. So high-quality official monitoring was crucial. That called for timely, accurate and comprehensive data about the borrower's position. Gai concluded with some interesting observations about the role of private sector finance, and what the paper might mean for East Asia.

Liz Dixon, Andy Haldane and Simon Hayes (Bank of England) stressed the fact that the nature of financial crises had changed recently. In the 1970s and 1980s, it had been current account balance of payments deficits that had often set them off. By contrast, 1990s' crises had begun on the capital account, often deepening as a result of maturity and currency mismatches in the victim countries' national balance sheets.

The main lesson to be drawn from such crises was the need for balance sheet monitoring and management before they broke out. More and better data, enhanced surveillance and laying down guidelines for managing balance sheets for the authorities and the banks were all needed, and important steps had been taken, through FSAPs and ROSCs for example, to provide them. The next stage, the authors argued, was to progress from macro prudential analysis to comprehensive macroeconomic analysis. Looking at national balance sheets was valuable, but identifying the balance sheets of component aggregate units, such as the private non-bank sector, was an urgent need. So too was scrutiny of off balance sheet transactions. And were more and better data enough, they asked? Greater transparency may alter behaviour, and the genesis of crises. But lessons based on behaviour under one regime may tell us little about what happens when that regime changed.

All were agreed that macro prudential surveillance was crucial to crisis prevention. But which data did this require? What analytical methods were needed to carry out this work effectively? These key questions were addressed by Philip Davis (Brunel University).

Davis pleaded for a selective synthesis of the theories of financial instability. Experience taught us, he maintained, that ingredients in this synthesis should include information asymmetries, disaster myopia on the part of banks and regulators, recognising the differences between risk and uncertainty, asset bubbles and risk mispricing, together with herding, bank runs, currency mismatch and industrial organisation issues.

For Philip Davis, key data were for flow of funds; financial prices and spreads; monetary, banking, external financing and macroeconomic statistics; and

(1) The paper starts with a summary of a recent two-period model due to Chui, Gai and Haldane (2002), which encompasses two kinds of financial crisis. One arises when a borrower's (random) supply capacity—productivity—turns out so low that he is insolvent. The second occurs above this level, where it is low enough for unco-ordinated creditors to withdraw funds (the loan contract permits this) if enough of them are too fearful. Capital flight damages the investment project that the loans finance. In the second case, any crisis is based on beliefs. One key feature in that case is that a creditor who quits makes it more likely that others would want to pull out too. And unless the model is tight, anything can happen in this region. Morris and Shin (2000), in a similar context, paint each creditor as having a different but imperfect signal in period one about what period two supply will be—and this can remove the multiplicity of solutions down to one. Chui *et al* (2002) show that the Morris-Shin unique solution applies in their model too.

qualitative information on such phenomena as regulation, innovation and risk correlations.

Contributions on how to resolve crises

Resolving and preventing financial crises were inseparable issues, Mervyn King argued. The right approach to crisis resolution had to balance two objectives: not just minimising the costs of a crisis when it happened, but also minimising the likelihood of future crises later on. Proposals about crisis resolution needed to be assessed from both standpoints. The second objective called for a proper alignment of incentives for all parties—borrowers, creditors and the official sector.

Anne Krueger's call for a Sovereign Debt Restructuring Mechanism (SDRM), and recent proposals for expanding the use of collective action clauses in international bond contracts were valuable, Mervyn King maintained. But they did little to meet the second aim of keeping future crises to a minimum.

Prospects of official finance could deter borrowers sensing trouble from starting to restructure debt. Instead, it may tempt them, and their creditors, to temporise and even gamble by augmenting it. Exceptional access to large official loans had become more common, and unpredictable in scale.

So presumptive (though not rigid) limits on official financing were desirable, and so too was the judicious use of payments suspensions and standstills when crises struck. Borrowers in difficulty should face a clear set of options, and encouragement to seek early, market-based solutions to payments problems. Official finance should be a backstop, not a first resort: official lending into arrears could depend on an orderly renegotiation of debt, with payments temporarily suspended. These principles needed to become operational, and without delay.

More clarity about IMF financing decisions and rescheduling procedures should stabilise capital flows, trim risk premia and thus serve to lower, not raise, the cost of capital to emerging countries.

To Mervyn King, the private sector's initial responses to these ideas had been encouraging. They represented in his view a healthy evolution of the world's financial system from which all players could benefit.

Andy Haldane (Bank of England) and Mark Kruger's (Bank of Canada) paper was also devoted to these issues. Their argument was that the IMF's response to most past crises—bridging finance, often heavily conditional on reform, and in the hope of generating private sector capital inflows—was not immune to criticism. Creditors' and debtors' incentives might have been affected perversely. There were costly uncertainties about the scale of help; and future crises could become likelier when everyone understood that such help may be very generous after the event.

The alternative framework they proposed aimed to align incentives for all parties affected by an international financial crisis, and to stipulate a clear sequence of actions for the players. Limited official finance for a crisis victim country should come first, they argued: enough to avoid excessively rapid and painful adjustments, but limited to circumvent the moral hazard difficulties that arose with any form of insurance that paid the insured to act differently.

The IMF's normal official lending limits should apply in crises, Haldane and Kruger advised. Clarity here should help by reducing risk premia for emerging countries; by dissuading private creditors from playing a waiting game at times of strain and gambling on a breach of those limits; and by deterring them to some degree from excessive lending in the first place.

The second element in the Haldane-Kruger picture concerned the parties themselves. The debtor should be free to choose (after consulting creditors) from a menu of possibilities. These included bond exchange, debt rollover, and temporary standstills. Standstills on overseas debt service and repayment could help to coordinate creditors, align the parties' incentives, and buy time and order for restructuring and reform. The guidelines the authors suggested for standstills included transparency, equal creditor treatment, new lending seniority, a time limit, and rules about debt reductions in the event of illiquidity (rephasing debt at unchanged present value) and insolvency (cutting back to a sustainable level).

While urging respect for normal limits on official financing, they recognised the case for flexibility in extremis. But write-downs for insolvent defaulters, and general expectations of official lending ceilings, should in the long run curb future overlending, so often a key ingredient in the crisis.

In a related paper, Andy Haldane explored and compared two proposals for reinforcing the international financial architecture. The first was Krueger's (2002) call for a Sovereign Debt Restructuring Mechanism (SDRM), or international bankruptcy court embracing some of the features of Chapter 11 in the US system. The second concerned the suggestions advanced in the Haldane-Kruger (HK) paper summarised above. What the two share was their emphasis on standstills. But while HK recommended a non-statutory solution device for both illiquidity and insolvency crises, the SDRM was statutory and confined to insolvency.

Pronouncing insolvency involved, *inter alia*, guesses about the future course of the debtor country's GDP and interest rates. Andy Haldane argued that there were bound to be more countries in a 'grey zone' between clear illiquidity and clear insolvency, than there are cases of the last kind. As SDRM gave interim official finance, the borrower's returns had a floor, so that his losses were limited in bad outcomes, thus tempting him to gamble. The official community, whatever it might say and want *ex ante*, tended to forbear, and could end up inducing and indeed financing private sector outflows.

These drawbacks Haldane saw in the SDRM were compensated by four strengths. Two—protecting creditors' interests and granting fresh loans seniority—were common to the HK proposal. Two were not. These were the risks of creditors suing or disrupting debt restructuring agreements. He argued that law suits, while not uncommon (over a quarter of sovereign defaults since 1975 had provoked them), succeeded only rarely. And hold-ups had been attempted by only tiny minorities of creditors. The SDRM was a long-term proposal that would require lengthy and widespread legislation, but could be seen as complementary to the simpler recommendations of HK, which could be implemented sooner, and would also embrace liquidity or grey-zone crises.

Some concluding remarks(1)

In his background summary paper, Peter Sinclair's discussion of the international financial architecture explored the analogies of buildings and plumbing. He posed a number of questions, and then distilled answers from the papers presented. If it were a building, he asked how deep and strong should its foundations be? How secure against nature, and man's misbehaviour? Should it be a fortress, to control ingress and maintain privacy, or a translucent glasshouse, its inner workings plain to any outsider? Should its flooring be partitioned? Would watchtowers be needed? What signs of attack should the sentries look out for?

How free should financial actors be to move around their own national stage, or those of other countries? Should we be conducting our affairs on one global stage in the long run? Should the building be wired to record all participants' transactions? Should it be a panopticon, with camera monitors in every nook? How far could we trust market systems to translate individuals' actions taken in informed self-interest into efficient aggregate outcomes? Should the private sector build part of the edifice, and how could we best involve it in its operation? Or should this be left to national or supranational authorities? And if a global architect offered plans, exactly who would debate, amend and ratify them, and where, when and how? If the supranational authority were to be the partner of national authorities, what precise form should that partnership take?

Controls, rules, oversight and risk-proofing were all costly, directly and indirectly. Their benefits, however large, were presumably subject to diminishing returns at the margin. So where would the ideal balance be struck? What would be the lowest-cost method of constructing the building, for any given size and level of complexity?

The building was already there. Would it have to be rebuilt? Should its architecture be uniform? Or would pluralism be permissible or apt? Would the same standards, rules or ratio formulae for all financial institutions be right for all countries? Would it just be banks we had to encompass? Should there be a state-of-the-art building for the richest countries' financial systems, with more latitude and simplicity for others? And on what time scale?

Might a rigid structure for international finance impede innovation and growth? Could it accentuate cyclical instabilities? Would it just be shelter against the worst shocks that nature could throw that constituted the core

(1) The author wishes to emphasise that this is his personal selection of conclusions to emerge from the background papers prepared for the Symposium, and the three main addresses given there. They should not be seen as conclusions agreed by participants at the Symposium, nor as conclusions the Bank of England drew from it.

function of the building? Would reducing the frequency and gravity of shocks be the right objective? Would it be wiser to accept that some shocks were unavoidable (or best not resisted), and aim, instead, to allot irreducible risks to those best placed by circumstance or temperament to bear them—and resolve the effects of bad shocks to achieve an ideal trade-off between fairness and proper incentives for future actions?

Maybe it was humbler features of the financial edifice with which central banks were most concerned. Plumbing could be a better analogy. Would it be the task of central financiers to provide safe conduits for liquidity, without which trading and production could dry up? Would international financial architecture embrace irrigating and protecting trades (in goods, risks and assets) within national borders, and not just across them? And should good plumbing include a proper mechanism for the swift write-off and disposal of defunct assets in the banking system? What tolerances to risk and stress should the plumbing exhibit? Must there always be enough liquidity everywhere, or could that promote risky behaviour or cause inflationary floods? How much should be spent on removing dangerous impurities? How thoroughly and often should the plumbing be inspected and renewed?

The main conclusions offered by the Symposium papers suggested those questions might be answered as follows. If international financial architecture were an edifice, that it should contain much glass, as well as fora where the private sector, national authorities and supranational bodies could meet and work in harmony. There should also be watchhouses for phenomena and data. The main existing central building, the IMF, certainly did not need replacing, although its links to the rest of the structure might require some strengthening, in addition to the recent changes in train. Much important work had already been done; but questionnaires and site checks needed to be followed by a continuing process of repair and renewal. Rather too many parts of the building remained unconnected to the main concourse and to each other, to the detriment of their inhabitants. A structural survey would reveal that the interface with government budgets was a key weakness in some areas. Using large official financing to rescue public sector overborrowers and private sector overlenders from their past errors was not a buttress, but a threat, to the fabric in the future. Standstills in emergencies would offer much more promise. And the building's future safety was perhaps guaranteed best by adopting rules that no longer rewarded misbehaviour or excessive risk taking.

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