Review of

Financial Crises, Liquidity, and the International Monetary System
by Jean Tirole

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Why do financial crises occur and what should be done about them? Jean Tirole's book provides an interesting analysis of these issues. It is an excellent contribution to the debate over the international financial architecture.

The book starts with an outline of some of the changes in international capital flows that preceded recent crises. Before the 1980's most international capital flows to emerging countries consisted of medium term syndicated bank loans to sovereign states and public sector entities. The financial liberalization of the 1980's and 1990's increased the volume of capital flows and changed their composition. By the mid 1990's syndicated bank loans were a relatively minor component with foreign direct investment and portfolio bond and equity flows becoming considerably more important. There was a strong consensus among economists that these capital flows were desirable. They allowed emerging countries to grow at a faster rate and international investors from wealthy countries to earn a higher return than would otherwise be possible. The Asian crises of 1997 and the Russian crisis of 1998 helped to destroy this consensus. The inflows caused booms in asset and real estate prices in many countries. When these booms ended the banking systems in a number of countries became fragile, flows reversed, currency values and asset prices plunged. The crises spilled over into the real economy and significant recessions ensued.

Tirole argues that the consensus view on how to prevent crises involves seven pillars.

1. Currency mismatches where banks and firms borrow in a foreign currency should be eliminated.

2. Maturity mismatches where foreign loans are short term but bank lending is long term should be eliminated.

3. The institutional infrastructure of the financial system should be reformed and brought into line with international best practices.

4. Prudential supervision of banks should be improved.

5. Country level transparency concerning guaranteed debt and off-balance-sheet liabilities should be increased.

6. Bail-ins where foreign investors are forced to bear part of the burden after crises should be encouraged.

7. Fixed and pegged exchange rates should be avoided.

He provides a convincing critique of these conventional views. First, what exactly is the objective of these policies? It would appear to be to prevent crises but this is not a sensible objective in itself. Presumably there is a reason for currency or maturity mismatches, for example. Eliminating them will have a cost as well as a benefit. Second, if it is clear that these are such desirable policies why weren't they adopted sooner? Two possible answers are government incompetence and/or political economy considerations. Neither is particularly satisfactory. Tirole suggests that what is required is an unambiguous objective that allows costs and benefits to be sensibly evaluated and a full understanding of what is a symptom as opposed to an underlying problem to be gained.

Although there is a consensus view about the seven pillars, there is disagreement over a number of things. He suggests that the basic reason is the topsy-turvy principle. There is an inherent conflict between ex ante (pre-crisis) incentives and ex post efficiency (satisfactory crisis resolution). The “hawks” such as Schwartz (1999) stress ex ante borrower and lender incentives while the “doves” such as Stiglitz (1998) stress the orderly workout of crises.

Standard theories of crises can be divided into the “fundamental” and “panic” views. The “fundamental view” stresses that the root cause of crises is weak fundamentals. It is in the tradition of the Krugman (1979) view that there is an inherent inconsistency in government policies. Examples of this view are Corsetti, Pesenti and Roubini (1999) and Burnside, Eichenbaum and Rebello (2001). The basic theme of these papers is that the Asian crises occurred because of a deterioration in fundamentals due to factors such as competition from Chinese exports and recession in Japan. Although government policies in Asia appeared to be in balance before this deterioration, governments were exposed to large implicit liabilities because of implicit and explicit guarantees. The fundamental view is also sometimes termed the “moral hazard view” because such guarantees can lead to excessive risk taking by banks and firms that exacerbates the deficit problem.

The “panic view” builds off the Bryant (1980) and Diamond and Dybvig (1983) theory of bank runs. It suggests there are two equilibria. There is a good equilibrium where investors believe there will not be a crisis and they are willing to keep their funds in the country. However, there is also a bad equilibrium. If investors believe there will be a crisis then these beliefs are self-fulfilling. When everybody tries to take their money out of the country there will be a collapse in the exchange rate and it is optimal to try to be the first to do this. Examples of this approach are Cole and Kehoe (1998) and Chang and Velasco (1999). The panic view has been criticized because it lacks predictive power. The reason is that it is not based on a theory of equilibrium selection. However, richer models such as Morris and Shin (1998) give rise to a unique equilibrium.

The purpose of the book is to develop an approach based on agency theories of corporate finance. When positive net present value projects arise firms need to be able to raise the funds necessary to undertake them. With complete contracting possibilities firms could do this without a problem. However, with incomplete contracting possibilities there is a wedge between value and pledgeable income. Insiders have private benefits of control so they must be provided with incentives that align their interests with those of investors. Corporate governance and monitoring mechanisms are designed to minimize the losses associated with the incomplete contracting possibilities. Managing liquidity becomes crucial to being able to undertake desirable projects and avoid credit rationing.

One particularly important form of incomplete contracting in corporate borrowing is due to *common agency* problems. These arise from contracting externalities, free-rider problems and heterogeneity of claims. There is often no centralized coordination between different security holders. Taken together these problems can lead to significant inefficiencies. Institutional responses such as transparency and security design go some way to dealing with problems raised by common agency.

In the international context *dual agency* problems arise in addition to common agency problems. In a closed economy there is an agency problem because the lender has to worry about the actions of the borrower and the effect these have on the returns the lender will receive. If the lender is from a different country than the borrower, there is an additional agency problem. The government in the borrower's country can take actions to reduce the lender's returns. For example, if the exchange rate is changed, or the lender's control rights are reduced because of changes in the law, the lender's returns will fall. The government will often have significant incentives to favor domestic agents over foreign ones. For example, foreign lenders do not vote while domestic borrowers may do. It is this dual agency problem that distinguishes cross-border lending. It interacts with the common agency problem to create substantial frictions in the operation of international capital markets.

The dual agency problem has important implications for the international financial architecture. In particular, Tirole argues that it provides a role for an international organization such as the International Monetary Fund. This can act as a delegated monitor on behalf of international investors and recontract with the governments of countries that are net importers of capital. This recontracting allows the effects of the dual agency problem and its interaction with the common agency problem to be ameliorated. When capital markets are competitive, the benefits from this reduction in agency problems will ultimately accrue to the borrowing country.

This dual and common agency approach leads to different conclusions regarding the seven pillars of conventional wisdom. For example, as explained above it is usually argued that currency and maturity mismatches should be avoided. However, short term debt denominated in foreign currency is a way of reducing the dual agency problem. It acts as a limitation on government moral hazard. If a country had significant long term foreign debt denominated in domestic currency, the government would have a strong incentive to take actions to reduce the exchange rate. Similarly, with this perspective there is not a compelling preference for exchange rate regimes to be variable rather than fixed. The government can devalue with a fixed exchange rate or take actions to ensure the exchange rate will deteriorate in a floating regime.

The book represents a well argued and original contribution to the debate on international architecture. It deserves to be widely read. In contrast to much of the existing literature in this area, it provides a consistent and logical analysis that starts from first principles. This approach avoids simply treating symptoms while leaving the fundamental problems untouched.

The book ends by pointing out that the analysis it contains is just a start. More research using the dual and common agency approach is needed if Emerging Markets economies are to benefit as much as possible from capital account liberalization. The remainder of this review will focus on possible directions such future research might take.

Like much of the recent literature in the international macroeconomics literature, the focus is on understanding recent crises in emerging countries. However, the crises in Norway, Finland and Sweden in the early 1990's are important data points. The characteristics of these crises are similar in many ways to those in emerging countries. An important issue is whether the dual and common agency approach can be used to explain them. A full analysis of how government moral hazard manifested itself in these cases would be useful to illustrate why it is important to focus on the dual and common agency approach.

Another related issue is how useful is the agency approach is for understanding other crises. For example, Japan has been suffering a protracted banking crisis for many years. Is this kind of crisis different because it is a net exporter of capital? Is the common agency approach sufficient to understand what has happened there?

Bordo and Eichengreen (2000) have argued that crises in recent years are like those in the gold standard era from 1880-1913. Can the dual agency and common agency approaches be used to understand crises in that era? For example, the crisis of 1907 originated in the US and spread to many other countries. How can the dual and common agency approach be used to explain this kind of contagion?

The central issue raised by these directions for future research is the extent to which it is fruitful to focus on one particular market failure. It can be argued that crises arise in a wide range of circumstances. Agency problems are an important component of the tool box needed to understand crises. The extent to which other theories are needed in addition remains an open question.

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