# INTERNATIONAL FINANCIAL ARCHITECTURE

## How to Draw up a Credible International Rule System for Financial Stability

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The current international crisis has many faces: a severe disruption of the financial industry and a stark recession. For the long run, we need a reliable and credible institutional arrangement that will prevent us from facing similar financial distress again. In the short run, we have to move out of the present recession.

It has long been a tradition of Germany's Freiburg School that a market economy needs rules. A major example is a rule system guaranteeing competition against endogenous market tendencies to form monopolies if these tendencies are uncontrolled.

Institutional arrangements, including norms of behavior, laws and other rules, draw from negative historical human experience, primarily from historical disasters (Siebert 2009). Rules evolve in order to prevent human hardship and misery. Some rules came into existence after the Thirty Years War on the European Continent in 1648 and after other wars and internal turmoil. Without rules, life would indeed be "solitary, poore, nasty, brutish and short", in the words of Thomas Hobbes.

On a global scale, rules refer to the institutional arrangements among states. In specific areas and to a certain extent, sovereign states cede sovereignty. This leads to the establishment of a multilateral rule system, binding sovereign states and their citizens. In the economic sphere, we have accumulated experience with an institutional set-up that affects all aspects of the international division of labor, primarily in the World Trade Organization. We now are in the process of finding new rules for global environmental scarcity.

Our negative experience with the current financial crisis requires an answer to the question: What are the essential elements of a rule system for financial stability? Here are some crucial aspects:

Inflation and hyperinflation can be avoided by setting up an adequate institutional arrangement for the central banks and adapting an adequate monetary policy. A basic rule is that public budget deficits must not be financed by printing money. The independence of the central bank is of utmost importance. The position of the central bank must be strong enough to resist political pressure for an easy money policy and for simply financing the public budget.

In order to study rules for a sound financial system, one needs to look at the tasks that the financial system has to perform: allocate savings to investment; finance transactions, investment and infrastructure; transfer, reduce and manage risks; perform maturity transformation within reasonable limits; and send reliable signals through prices. These tasks should be performed without causing financial disturbances.

Balance sheet truth is essential. The Enron case in the US in 2001 has made clear that stock markets cannot successfully intermediate between savings and investment if the balance sheets of firms are false. Under such conditions, share prices are distorted; when the fraud is revealed, stocks are depreciated, stock owners are betrayed, and the reputation and credibility of the financial market – a crucial precondition for market economies – are devastated. Financial markets cannot function correctly if they do not provide reliable information.

Balance sheet truth also applies to the banking sector. Bank balances should reflect risks adequately. Risks should be incorporated in the balance sheet. In securization, the originator of a loan should retain part of the original risk, say 10 or 20 percent.



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The bank's risk management has to ensure the sustainability of the institution: it has to anticipate how the bank's environment will change, including the probability distribution of risks. It has to be aware of risks in the tails of a probability distribution with low probability, but large damage, the "black swans". Capital adequacy requirements, i.e., a bank's capital in terms of shareholders' equity and retained earnings as a percentage of its risk weighted credit exposure, must take into account the long-run sustainability of a financial institution; a value of 10 percent seems appropriate.

Such requirements have to adjust to adverse situations in the business cycle and to the interconnectedness of risk positions within the financial industry. They also have to be set higher for riskier activities. Levers between debt to own equity should be limited; they should not exceed 12:1, a ratio in force in the US before 2004.

Bubbles are part of our historical experience. When in a financial bubble the herd begins to run, those in charge have to stay outside the turmoil and remind everyone of the equilibrium that will be sustainable in the long-run. In other words, the intertemporal fix point or the transversality condition known from intertemporal optimization models has to be respected. Such an intertemporal fix point would have prevented such bubbles as the tulip mania in Holland in the 17th century; and it could have avoided the financial exuberance in the US housing bubble (which was similar to the Dutch tulip mania).

While risk transformation and consumption smoothing are important aspects of the banking industry and the capital market, institutional arrangements should not artificially favor overconsumption, which can be the cause of yet another financial crisis. Overconsumption in real estate in the US did not have a basis in savings; in that sense, it was artificial. The housing bubble led people to expect that the mortgage could be financed through the increases in wealth from rising house prices. Many factors contributed to the bubble, such as the low interest rate of one percent for several years, a result of the Fed's expansionary policy. Of course, politicians were happy that their voters could realize the American dream of owning their home. In a way, people were lured into taking out mortgages; predatory lending prevailed. These false incentives were exacerbated by Fannie Mae and Freddie Mac, government-sponsored organizations.

Prudent supervision has to become more effective. Supervision must be able to avert systemic risks by implementing the necessary instruments, for instance stress tests. Ratings have to be improved. At the same time, regulators should not rely automatically on ratings. All in all, the financial sector should not distance itself too much from the real economy.

Regulation failed in the US and in Europe. The regulatory regime for Fannie Mae and Freddie Mac established by Congress proved to be inefficient. The institutional arrangement for Fannie Mae and Freddie Mac was flawed from its beginning in 1968; their accounting scandals in 2003 and 2004 were covered up by Congress. In Europe, regulators did not recognize that banks contracted the disease by taking on the bad loans from US banks.

The subprime crisis shows that regulation per se is not a guarantee that financial crises can be prevented. On the contrary, since regulations set incentives, they may well set the wrong incentives and cause moral hazard. An example is the failure of the 747 savings and loan associations in the US in the 1980s and 1990s; the origin was a government regulation providing special protection to risky loans made by these institutions. This was actually an incentive to go into more risky lending. The failure of US regulators to detect the fraud at Enron is a further case. The failure of regulation in Germany to notice the problems at Industrie Kredit Bank and Hypo Real Estate and to act accordingly is another example.

One major reason why regulation often fails is that the regulator does not have the appropriate information. This is the issue of asymmetric information at a given moment in time. It is also the Hayekian problem that the regulator cannot possibly have all the necessary information on future economic conditions; most specifically he cannot have all the information on the industry's product innovation. Another major reason for regulation failure is regulatory capture, i.e., that the interest of the regulated bodies seizes the institutional arrangements and dominates the interest of the public. That is why I am skeptical of the Stiglitz proposal to include those affected by financial products into a regulatory body. The body then may well be "captured" by its members and politics.

After all, we should not forget the positive experience we have had with de-politicizing institutional arrangements, for instance in the realm of central banks. New regulations, introduced with the best intentions, may have hidden incentive effects that represent new moral hazards so that the institutional arrangement is not improved. Moreover, time inconsistency of political decision-making with shifting preferences is an important factor affecting the regulatory framework and causing its instability.

Yet another important aspect of a financial rules system is that international spillovers are typical for the financial industry. Co-ordination among national regulatory authorities is needed just as among competing authorities. This can be done under the umbrella of the Financial Stability Forum, which should attempt to open membership to emerging countries to ensure that the Financial Stability Forum is not a rich men's club. Especially cross-border banks require some form of co-operation among regulators, for instance within regulatory colleges. The Bank for International Settlement can play the role of a standard setter. Standards should refer to the economic situation and the structure of the banking industry. They do not have to be completely uniform across countries.

In some countries of Europe there has also been a call for an increased role of the IMF in establishing financial stability. Of course, the IMF's surveillance can monitor financial stability and the situation of the financial sector; its Financial Sector Assessment Program, up to 2008 voluntary, should become mandatory for its members. However, the IMF has no sanctions at its disposal to stop national banking systems from running into trouble. Ceding sovereignty to an international body in the area of prudential supervision, including concrete sanctions against a financial "polluter", is unlikely to happen. It would mean giving a crucial policy instrument out of the nation's hand. Countries are reluctant to cede sovereignty to the IMF in light of the IMF's approach to the Asian currency crisis. Moreover, the IMF is not in a position to apply the polluter-pays-principle when a country starts a financial bubble that artificially leads to national overconsumption and overinvestment. Another crucial aspect is that any bail-out will have to be backed by national tax money; states are unwilling to cede sovereignty in this realm. The French proposal to endow the IMF with more instruments and to turn it into an economic policy machine or an "economic government" faces the counterargument that the IMF has been a political institution, having been under US influence in the past. Political "capture" by other states would not represent an institutional improvement. The objections against an "economic government" in the euro area also apply to the IMF. Thus, the IMF cannot play the role of the world's economy chief regulator. For the same reason, it cannot be the world's central bank.

In view of national political rescue plans and the ensuing enthusiasm for anti-recession programs in the autumn of 2008 and early 2009, central banks must be vigilant that these activities do not erode their position of independence which they have gained from politics in the past. It would indeed be a historic irony of rule setting if the financial crisis served to politicize the money-supply process again.

A major systematic problem for an institutional arrangement for financial stability is whether the rules are credible. This issue can be analyzed in terms of principle-agent theory. Governments write the rules for agents, but it is difficult to observe the extent to which the banks follow the rules. Information between the principal and the agent is asymmetric. In order to solve the problem of credibility and crack the systematic problem, an institutional arrangement should be introduced in which the government credibly commits itself not to bail out financial institutions in the worst case scenario. An important element of such a rule is that in case of failure the owners of the bank will lose their capital and that its managers will be replaced by the regulator. This means introducing a bankruptcy procedure for financial institutions. Due to the pervasive impact of a bank failure on the general public, however, it will be extremely difficult to give credibility to such a no-bail-out rule. Without such a credible rule, banks can expect to be bailed out. Thus, in ten or twenty years from now, governments will be in the same position as they found themselves when the financial crisis erupted in 2008. In any case, central banks and governments should be aware that without such a credible no bail-out rule, commercial banks can view the massive injections of liquidity and the immense fiscal support packages by national governments as a strategic game in which they can determine the responses so that they make the best out of the crisis. In order to prevent such a cat and mouse game, governments must write a sustainable principleagent contract. Regulation must be made efficient.

Another issue of an international rules system consists in preventing national rules systems from being instrumentalized by the national political process, i.e., the financial system being used for political goals. Last but not least, international rules for the financial

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sector should prevent a bubble from arising that allows artificial financing of overspending (overconsumption; overinvestment) and that has no basis in real savings (as in the case of the US housing market).

Solving the international banking crisis is a precondition for moving out of the recession since otherwise the uncertainty of the financial crisis will continue to affect the real economy. In fighting the recession in the real economies of the major countries of the world, including the US, we should remind ourselves that automatic stabilizers contribute to the capacity of the economy to produce a turnaround, even if some central banks fear the spectre of deflation. The decline of the oil price is not part of deflation. It is normal for prices, for instance, wage income and the price of other inputs to decline in a recession. Some economies in Europe have adjusted their labor markets to make the economy more robust; moreover, some characteristics of the social security systems in some European economies allow for the automatic stabilizers to play out their effects.

Central banks must be cautious to ensure that their massive injections of liquidity and their interventions to get bad loans out of the system do not raise inflationary expectations and give rise to additional uncertainty. Not much would be gained if part of the actual uncertainty is substituted by even more uncertainty. Along the same lines, the national rescue plans and anti-recession programs on both sides of the Atlantic are likely to increase public debt. All these programs must face the risk that they perpetuate a situation that has arisen from aggregate demand not being supported by savings, i.e., by a condition (in the US) that was unsustainable and had the characteristics of a bubble. It would be an illusion to assume that the bubble can continue. Consequently, crisis management should ensure that it does not perpetuate overconsumption.

#### Reference

Siebert, H. (2009), *Rules for the Global Economy*, Princeton University Press, Princeton, in press.