Institute for New Economic Thinking

Session: Can Sovereignty and Effective International Supervision be Reconciled? The Challenge of Large Complex Financial Institutions

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"Too Big to Fail, Too Big to Jail"

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I want to thank Rob Johnson, George Soros and the INET for inviting me to participate in this illustrious Conference at such a beautiful and historic venue. Speaking with such distinguished panelists and discussants on financial regulation before such high-powered experts is an honour indeed.

The theme of this session is very timely and controversial, on the ability of sovereign governments to supervise Large Complex Financial Institutions (LCFIs), now officially described as G-SIFIs, global systemically important financial institutions. The title of this paper, Too Big to Fail, Too Big to Jail is not a morality statement, but one of physical size. How do we regulate or manage financial institutions that grow larger than nations? Allow me to call them financial Godzillas, the mythical Japanese animation creature – created by technology, growing non-stop, hard to define and stop, but you know one when you see one.

Possibly because of jetlag, I saw three ghosts of Bretton Woods last night. The first one asked me to do some "ruthless truth-telling", exactly what John Maynard Keynes said in his address at the official launching of the IMF. The second ghost who was Asian asked me to apologize before I speak, since truth telling was bound to offend someone. The third, which looked like a Godfather, asked me to just do it, because it's not personal, its business. I would therefore like to say that any comment or opinion expressed today is totally personal, and not associated with any official organization that I am affiliated with.

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[1] The views expressed are solely those of the author and not those of any institution that he is affiliated with.

Morris Goldstein and Nicholas Veron gave the latest review of the Too Big To Fail (TBTF) problem[2]. They concluded that LCFIs create three policy challenges: (a) they exacerbate systemic risk (b) distort competition and (c) lower public trust due to the privatization of gains and socialization of losses. Having surveyed the reform measures to date in the US and EU, they concluded that size caps are not likely and that the G20 has not solved the TBTF problem on a comprehensive basis. To date, officials are still quibbling over the exact number of LCFIs to include for supervision purposes.

The Nature of the Problem

We cannot solve the TBTF issue until we are clear in our own minds what exactly is the issue – is it the beasts themselves or the root causes that created these beasts? I would argue that unless we understand the systemic issue, we cannot even begin to provide a prognosis if the diagnosis is fundamentally flawed.

First, the LCFIs are very large relative to the world assets. The 25 largest banks in the world account for $44.7 trn in assets in 2008, compared with only $6.8 trn in 1990[3]. That would be equivalent to 73% of global GDP and 42.7% of total global banking assets, per IMF data[4].

Second, they are very large relative to individual countries. In 1990, none of the top 25 banks had total assets larger than national GDP. Today, there are 7. More than half have assets larger than half national GDP, compared with only 1 in 1990. UBS was 376% of Swiss GDP in 2008, whilst RBS was 131% of UK GDP[5]. The Icelandic banks had losses over seven times Iceland's GDP.

Third, the concentration of LCFIs is increasing. In 2007, the OECD reported that the top 3 banks on average accounted for 69% of total commercial bank assets within OECD member countries. The top 5-10 banks typically account for 50-80% of total financial business, particularly financial derivative business. Global banks dominate most of emerging market corporate and investment banking business. For example, global banks account for 96% of inbound/outbound merger and acquisition business in Indonesia and international equity capital market business in Thailand[6].

Fourth, the total size of financial assets (stock market capitalization, debt market outstanding and bank assets, but excluding derivatives) has grown dramatically faster than the real sector from 108% of GDP in 1980 to over 400% by 2009

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[2] Morris Goldstein and Nicholas Veron, Too Big to Fail: The Transatlantic Debate, Petersen Institute for International Economics, WP 11-2, January 2011.
[3] Global Banks, Too Big to Fail, JP Morgan, 17 February 2010.
[4] IMF Global Financial Stability Report, April 2010, Statistical Appendix, Table 3, Selected Indicators of the Size of Capital Markets, 2008,
[5] JP Morgan (op.cit), pg. 9.
[6] Reet Chauduri, Vinayak HV, and Jean-Marc Poullet, "Capturing the investment banking opportunity in ASEAN", Exhibit 3, p.35, McKinsey on Corporate & Investment Banking, Number 11, Winter 2010, McKinsey & Company.

(555% in the case of EU)[7]. If the notional value of financial derivatives (at $615 trn 10.6 times global GDP at end 2009) were included, the size of financial system and its leverage ratio would be substantially larger than five times GDP.

Fifth, the LCFIs are highly complex and non-transparent, with 8 of 16 LCFIs identified by the Bank of England having over 1,000 subsidiaries, with Citibank having over 2,500[8]. When Lehmans failed, it had 433 subsidiaries in 20 countries.

In sum, the LCFIs are larger than countries, global in life, national in death and too complex to understand, manage or regulate properly. With the exception of Lehmans, they were largely rescued by government intervention during the global crisis. Indeed, their concentration has grown, since the largest of them took over some of the smaller and failing banks. There is as yet, no satisfactory national exit mechanism in place for LCFIs, let alone at the global level.

Information Asymmetry: We need a Systemic View

As Minsky identified in 1986, "A new era of reform cannot be simply a series of piecemeal changes. Rather, a thorough, integrated approach to our economic problems must be developed; policy must range over the entire economic landscape and fit the pieces together in a consistent, workable way: Piecemeal approaches and patchwork changes will only make a bad situation worse[9]."

We require not only a stock-flow consistent approach, but must also examine the problem from the structural, global, macro, micro and historical perspectives. Taking both a 30,000 feet and ground level perspective would suggest that Godzillas are really creatures of our own creation and essentially a political economy question that cannot be solved at the regulatory level. Indeed, the heart of the problem is the collective action trap of finance at the both the national and global level.

Seen from a complex, interconnected, interactive systemic perspective, we realize that this is a systemic crisis of fiat money, fraught with the problems of information asymmetry, power asymmetry and reflexive leveraged momentum trading. These three forces created the current endogenous systemic crisis, much as Minsky predicted.

There are three sources of information asymmetry within any human system. The first is the Knightian uncertainty, arising from the interaction between human participants in the economic system, including between market participants and government authorities. Such outcome of self-organized behaviour is inherently unpredictable, as Hayek (1974) as enunciated[10]. The second is the tail events (black swan) of natural disasters that man cannot totally

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[7] 1980 data per McKinsey Global Institute estimates and 2009 from IMF Global Financial Stability Report, Statistical Appendix, Table 3.
[8] Goldstein and Veron, p.19
[9] Hyman P. Minsky, Stabilizing an Unstable Economy, 1986, p.323.
[10] Friedrick Hayek, "The Pretence of Knowledge", Nobel Prize Lecture, 11 December 1974.

control nor predict. The third is the partial/limited information of every market participant that determines bounded rationality and collectively, the fallacy of composition. This fallacy is particularly true at the global level, because no national regulatory agency has a full picture of what LCFIs are up to in their global operations. Indeed, within national borders, global LCFIs are regulated by multiple agencies or silos, each of which has partial authority over parts of LCFI operations, either functionally or geographically.

Even if any single authority may have the information on the risks of a single LCFI, for reasons of either cognitive capture or other varieties of capture, that authority may not wish to act. The larger-than-nation institution can threaten to defect to another jurisdiction.

Structural – Excess Consumption funded by Excess Leverage

Larry Summers famously said of the Asian crisis in 1998 that it "has a common element with almost all financial crises: money borrowed in excess and used badly." In other words, the root of all financial crises is excess consumption financed by excess leverage.

The structural issue in the existing international monetary system is the dominant role of the single reserve currency system, which creates for the US the Triffin Dilemma that she has to run a looser monetary policy than her domestic needs. This in effect means that the US must run a current account deficit, which over the years generated the large unsustainable net foreign liabilities, which can only be corrected through reduction in domestic consumption. This implies either higher taxes or slower growth, which are not accepted politically for the advanced economies.

My fundamental point is that we are facing two concurrent crises – one financial, the other global warming, both stemming from excess human consumption of global natural resources. Godzillas are only the channels to facilitate excess consumption through their leverage creation, not the cause. There is a positive feedback mechanism whereby credit creation by financial industry has no hard budget constraint at the national and global level that encourages more excessive leverage and consumption.

In ecological terms, if every single Chinese, Indian or emerging market person were to consume resources like the average advanced country person, there would be no natural resources left. The partial perspectives do not add up.

Ultimately, we cannot limit the excess consumption problem without limiting the leverage problem. There has to be a hard budget constraint on global consumption. There is none with zero interest rates and state underwriting of LCFI activities.

After 2008, we woke up to the fact that the channel that fed excess leverage was shadow banking[11]. It then struck me that we have neither global institutions nor global policy tools to impose discipline or hard budget constraints on Godzillas to create global money. Finance, as Mervyn King famously said, lives globally and dies nationally, but at the national level, there are inadequate tools to restraint their inevitable concentration and growth.

As we recall in the film, Godzilla came into being from a small iguana exposed to an overdose of radiation. Financial Godzillas arose from the combination of technology, globalization, financial innovation and deregulation. Information and communications technology (ICT) facilitated the rise of global financial markets that are in essence networks across which property rights are traded. Local market networks merged with global networks through ICT and globalization to form global financial markets, served by emerging LCFIs, which needed the scale and concentration of knowledge to serve their multinational clients.

Metcalfe's Law states that the value of a network is exponentially related to the number of users, so that each financial institution tries to grow larger and larger vertically and horizontally. Look at credit cards (3 dominant players), credit rating agencies (3) accounting services (4), airline networks (3) and Web services (3) and we would recognize that if there were no further cross-border restraints, ultimately the forces of network concentration may result in only four or five global players in finance that are larger and more powerful than any single nation.

Global Macro – the Power Asymmetry

In his recent speech on the international monetary system, Mervyn King[12] raised the familiar theme of capital flowing uphill from emerging markets to advanced countries. To quote, "the deficit countries – predominantly the US, UK, Australia and countries in the euro-area periphery – were borrowing almost $1 trillion dollars more each year by 2006 than they had been in 1998. This created unsustainable paths for domestic demand, net debt and long-term real interest rates." In short, like Bernanke (2005)[13], his view seems to be that the surplus emerging markets were responsible for reserve currency countries losing monetary control.

Annual flows of $1 trillion would suggest that the gross debt of the deficit countries would have grown by roughly $8 trillion between 1998-2006. However, the IMF net foreign liabilities data for US, UK and Australia increased by only $3 trillion during 1998-2006, whereas the increase in net foreign assets

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[11] For full description of shadow banking, see Financial Crisis Inquiry Commission, 2011, available at www.fcic.gov

[12] Mervyn King, "Do we need an international monetary system?", speech to Stanford University Center for Policy Studies, 11 March, 2011, available at www.bankofengland.co.uk

[13] Ben Bernanke, "The Global Saving Glut and the US Current Account Deficit", Sandridge Lecture, Virginia Association of Economists, Richmond, Virginia, March 10, 2005

(the mirror image) for China and Japan was only $1.2 trillion, the balance being accounted for by oil producers and others.

The intellectual question is whether the sharp rise in gross debt of the deficit countries should be blamed on the net increase in savings (ex post) of the surplus countries. Based on recent US Flow of Funds data, the increase in shadow banking credit during this period was $10.2 trillion and traditional bank credit was $4.1 trillion, which meant that the increase in gross bank credit was nearly 12 times that of the net savings of the surplus countries. Should the decline in real interest rates and difficulties in controlling money supply in the deficit countries be blamed on the surplus countries' net savings or on the significantly larger shadow banking credit?

Where is $10.2 trillion increase in shadow banking credit included for monetary management purposes and for financial stability surveillance purposes? In Minsky terms, "everyone can create money; the problem is to get it accepted[14]." Since almost all countries have shadow banking credit, their cumulative impact on global money, liquidity and stability was a black hole that no national central bank, including the international financial community, had a handle on.

The point is that the regulatory and monetary perimeter should have been extended to the shadow banking system, which at its height in 2007 had total assets of $20 trillion, roughly 1.4 times US GDP and nearly double the size of the traditional banking system. By comparison, the Chinese and Japanese GDP together were only $7.8 trillion in size in 2007.

In other words, through sheer size, the financial system (including the shadow banks) has become too important and too interconnected to fail. They were not only highly leveraged at somewhere between 40 to 75 to 1[15], but they were also highly influential on the political front, being major contributors to the lobbying and campaign funds. From 1999 to 2007, the financial sector expended $2.7 billion in reported federal lobbying expenses.

The power asymmetry arises from the fact that through proprietary trading, the financial sector is no longer an agent for the real sector customers, but a principal in its own right and therefore in direct competition and conflict of interests with its own customers.

Furthermore, because reputation risk is huge, the Godzillas have legal resources that far outweigh national regulators and they become too large to jail. They do not feel enforcement "pain", because current fines or settlements on the legal entity only hurt shareholders, but management is not individually accountable.

Furthermore, long periods of cooperation between regulators and the industry (being friendly to the market) easily engender capture that could lead to corruption and behaviour that are against the public interest. Australian

[14] Minsky, *Stabilizing an Unstable Economy*, 1986, p.255
[15] FCIC Report on investment banks and GSEs, respectively, 2011 at www.fcic.gov.

regulatory economists Ayres and Braithwaite argue that public interest groups or civil society should have a major role to have countervailing power against capture[16]. Because there is cognitive and political capture by vested interests, the only countervailing power is civil society that is empowered by law and assisted by the state to create tripartism in proper checks and balance against capture.

So far, larger Asian economies have nationalized banking system that prevent political capture by the financial sector, but the downside is the lack of innovation by such state-owned banking systems.

Reflexive Momentum Trading – distortive incentives

The third factor is the reflexive momentum trading that characterizes current financial markets. The large volume of shadow banking credit creation procyclically generates asset bubbles because the larger the volume of credit available, the lower the interest rate. This is the cumulative macro-impact on markets arising from micro-behaviour.

As Minsky foresaw, "Endogenous increases in money and liquid assets raise the price of capital assets relative to money and current output prices[17]." The lower the interest rate, the higher the valuation of financial products. Current accounting standards that value derivative assets above the line and place related liabilities or contingent risks below the line mean that financial engineers take profits on bubble in derivatives, whilst ignoring build up in systemic and 'crowded exit' risks. Since management remuneration and bonuses typically account for 30-70 percent of financial institution profit, the incentives for financial derivation and therefore leverage is huge.

Furthermore, growing liquidity generated by shadow credit creation also lowers risk spreads, as asset inflation temporarily hide potential NPLs and future asset deflation losses, after the market turns and interest rates rise.

The tragedy is that the apparent higher market liquidity is essentially underwritten by central banking puts, because the Godzillas realize that if the market falters, the central bank will lower interest rates to bail out the market, and by definition, themselves. This moral hazard behaviour proved to be right for them when the central banks bailed out the financial sector in September 2008.

What can be done about constraining Godzillas?

As the liquidation of Lehmans revealed, the LCFIs are so complex in structure and processes that they cannot be regulated on a real-time basis. The liquidation process is still on going after more than four years from failure. The supervisory college structure has one major collective action flaw. The lead regulator cannot

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[16] Ian Ayres and John Braithwaite, "Tripartism: Regulatory Capture and Empowerment", *Law & Social Inquiry*, Vol. 16, No. 3. (Summer, 1991), pp. 435-496.
[17] Minsky (1986), op.cit, p.237

reveal LCFI problems to host regulators without triggering their action to protect their depositors at the national level, an action which may precipitate the crisis at the global level. In addition, host regulators have little leverage over LCFIs other than requiring subsidiarization of branches, which make management of liquidity and risks even more complex.

The bottom line is that post crisis, state support of Godzilla liabilities through guarantees, taking over of toxic assets and interventions have effectively transferred their losses to the public debt, resulting in an increase in public debt of crisis economies of nearly 50% of GDP. In effect, the burden sharing of financial crisis losses has been passed to holders of fiscal debt and future generations.

Strictly speaking, the solution of excess consumption and excessive speculation must be higher taxation. Instead, due to legislative reluctance to pass higher taxation or reign in expenditure, the burden of adjustment has been focused on monetary easing and financial regulatory reform. Unfortunately, regulation without political will cannot solve macro-economic consequences of excess consumption and political capture.

The Financial Stability Board and Basel III reforms aim to impose higher levels of capital, plus an overall leverage ratio that would try to limit Godzillas. It may slow them down, but since there has been no global agreement on regulation of shadow banks, it is likely that their growth may slow but not hindered. In essence, the world is facing an unequal game whereby the national regulators may try to take tougher action, but the political lobby power of the finance industry could limit their regulators' budgetary resources so that they may not be able to strictly enforce the law, even if these have already been diluted through their legislative passage.

There are several possibilities to limit some of the problems of the Godzillas. First, one tool is a uniform global tax on financial transactions or on size. The most commonly discussed tool is a Tobin tax on global FX turnover to put sand in the wheels. The second is to impose personal sanctions on individuals within management for egregious behaviour, so that there is personal accountability when the institution breaks the rules. Thirdly, there should be active anti-trust action to prevent Godzilla collusion and market manipulation activities that engage in market distortions or consumer predatory action. Fourthly, there should be more forensic end-to-end examinations of group activities and with their counterparties to have a better understanding of how institutions and the market lose control over the quality of derivative products and processes.

Conclusions

The reality is that with high levels of proprietary trading, the global financial industry has three fundamental characteristics that violate the principle of level playing field for markets. The first is that network effects drive concentration, so that some players will eventually emerge that are global in life and larger than nations. Concentrated markets are not fair markets. By sheer size, no single country can afford to pay for LCFI failures. They are too large to fail, too complex to manage and regulate and too important to jail.

The second factor on top of excessive concentration is that the global finance industry can create fiat money that is currently neither monitored for monetary stability (at national or global level), nor for financial stability purposes. This is a global collective action trap that has not yet been resolved.

Thirdly, by sheer size and their proprietary trading, LCFIs can actually take positions that not only are unfair to small (non-guaranteed) counterparties, but also affect whole nations in terms of stability. Imagine if one or more of the giants were found to have (individually or collusively), through their proprietary trading, to short one of the larger emerging market currencies, take similar CDS action that affect the credit rating and bring about the collapse of a largish economy. Who is to take action to investigate and prosecute such behaviour? The host regulator who may be captured? The home regulator who does not have sufficient resources nor legal powers to investigate this behaviour that may be launched offshore?

Unfortunately, the global financial industry has not shown any statesmanship to adopt sufficient self-discipline to curb industry excesses. This may be the endogenous self-organization behaviour that is beyond individual leaders.

Central bank intervention to bail out the finance industry has meant that all prices are highly distorted because of zero interest rates and near-zero transaction costs in finance. The real world cannot catch up with a financial industry that is spinning faster and faster into higher leverage without any "sand in the wheels". Financial markets are not pricing systemic risks adequately, due to massive state underwriting of liquidity and risks. Furthermore, the crisis has worsened market concentration and accentuated moral hazard incentives, creating even greater inequalities in income and wealth.

In other words, unless monetary, fiscal and regulatory discipline in the reserve currency markets is restored, individual emerging markets are operating in a highly distorted environment and increasingly unlevel playing fields.

At the macro-political economy level, unless the major reserve currency economies, which account for 58% of global GDP and 74% of global financial assets[18] impose monetary, financial and regulatory discipline, including imposing Hard Budget Constraint on their excess consumption and on their finance industry, the world may be heading for another financial crisis.

Penang,
6 May 2011

[18] Global Financial Stability Report, IMF, April 2010, Statistical Appendix Table 3.