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"CONTAINING TOO BIG TO FAIL"

I. Introduction

Twenty seven months ago, in August 2007, the gathering storm clouds of what would become the worst financial crisis since the depression darkened in an ominous fashion. Yet, at that time few of us either in the public sector or the private sector recognized that we were literally on the cusp of financial and economic disaster. We knew the housing bubble was unsustainable; we knew that the massive global imbalances in trade and capital flows were unsustainable; we knew that financial leverage in its many forms was bloating the size of the financial system relative to the economy in ways that were unsustainable; and we knew that the prevailing narrow credit spreads and low risk premia generally were unsustainable.

But, even in the face of these obvious red flags we failed to anticipate the speed and devastating degree in which "hot spots" in one segment of the financial system and the real economy were transmitted to the financial system and the economy as a whole. In short, we systematically failed to appreciate the manner in which, over a long period of time, excesses and distortions in the financial and economic system were linked together in ways that made the perfect storm of the financial crisis virtually inevitable. That inevitability was reinforced by the paradox of collective human behavior in which thousands – indeed millions – of wholly rational individual decisions at the micro level amplified the ravenous macro level appetite for risk taking on the upside of the cycle and the panic of risk aversion on the downside of the cycle.

Fortunately, the response of governments and central banks to the unfolding crisis has been very effective in damage control. Indeed, while the arm-chair quarterbacks will have a field day in second guessing individual actions taken – or not taken – by the authorities, I, for one, am hard pressed to imagine how the authorities could have done a better job of damage control especially in the face of the imperfect information and short time intervals for decision making that characterized the most threatening days and hours of the crisis.

Today, of course, the focus is appropriately on needed reforms in the workings of the financial system and the framework of official supervision and regulation of the financial system – an effort that is well underway in the United States and the rest of the world. Having said that, much remains to be done in a context in which the devil is very much in the details.

As I see it, the objectives of the reform effort must recognize that human nature being what it is we can not eliminate future financial crises. Thus, the objectives of the reform process should be to materially reduce the probability of future financial shocks and, more importantly, to better contain or limit the damage caused by such future shocks when they occur.

While the particulars of legislative and regulatory reform are never elegant, the process is proceeding reasonably well. Having said that, by a wide margin the most complex and sensitive issue on the table is how to better manage the acute policy dilemmas that arise in the context of the related issues of the so-called "Moral Hazard" and "Too Big to Fail" problems associated with financial institutions. Thus, the balance of my remarks will focus on these issues.

II. Too Big to Fail in Perspective

A. Patterns of Government Intervention

A simple check list of financial institutions in the US and elsewhere that have either failed outright or received large scale governmental assistance suggests the following:

First; during the crisis, individual big banks, small banks, investment banks, specialized banks and integrated financial groups have all encountered serious, if not fatal, problems. In the early phases of the crisis most write-downs were driven by sub-prime mortgages and structured credit products compromised of low credit quality mortgage instruments.

In the more recent period, and driven by declines in economic activity and the rise in

unemployment, large write-downs have occurred in very traditional credit instruments including prime mortgages, student loans, credit cards, leveraged corporate loans, and commercial real estate. Indeed, based on estimates prepared by Goldman Sachs Research, of the total US originated credit, losses and write-downs between Q3 2007 and Q3 2009, were about evenly split between lending activities and securities activities, including securitization. To a considerable extent these observations drawn from the United States are broadly in line with experience in other countries. Thus neither similarities in business models for individual institutions that got into serious problems nor particular features of prudential supervisory approaches in individual countries can satisfactorily explain the incidence of serious problems at individual financial institutions with particular emphasis on large institutions.

Second; it is therefore reasonably clear that the common denominators for acute problems at individual institutions were the usual suspects of (1) macro-economic and financial imbalances; (2) managerial and governance shortcomings at individual institutions; and (3) shortcomings in risk management; and (4) inadequacies in official oversight.

Third; notwithstanding the above, there is absolutely no question that seriously weakened large and complex financial institutions almost always entail elements of contagion and systemic risk that are so threatening as to result in policy responses with a strong bias toward "bail-out" as opposed to orderly resolution. This, of course, is the core of the Too Big to Fail problem.

B. The Role of Large Integrated Financial Groups

In the face of the understandable concerns about Too Big to Fail it is perfectly natural that a great deal of attention is being focused on the role of large integrated financial groups. While the business models of the relatively small number of such groups differ somewhat from one to another, as a broad generalization most are engaged in varying degrees in (1) traditional commercial banking both retail and wholesale; (2) securities underwriting; (3) a range of trading activities including at least at some elements of proprietary trading; (4) financial advisory services; (5) asset management services including the management of so-called alternative investments; (6) private banking; and (7) elements of principal investing.

All of these large integrated financial groups are indeed large with balance sheets ranging from the high hundreds of billions to \$2.0 trillion or so. Among other things, it is their size that allows these institutions to meet the financing needs of large corporations - to say nothing of the financing needs of sovereign governments. As an entirely practical matter, it is very difficult to imagine how the vast financing needs of corporations and governments could be met on anything like today's terms and conditions absent the ability and willingness of these large intermediaries to place at risk very substantial amounts of their own capital. One of the best examples of this phenomenon is the role large intermediaries have played in the recent past in raising badly needed capital for the financial sector itself.

For example, over the past two years US based banking institutions have raised about \$200 billion of new private capital while banks in Europe (including the UK) have raised about \$175 billion of fresh private capital and, the capital raising meter is still running. While there were some private placements, the overwhelming majority of such capital was raised in the capital markets and the associated underwriting, operational and reputational risk associated with such capital raising, was

absorbed by various combinations of the small number of large integrated financial groups. Moreover, many of these transactions took the form of rights offerings which involve extended intervals of time between pricing and final settlement thus elevating underwriting risks. The ability and willingness of these large integrated financial groups to assume these risks depends crucially on large numbers of experienced investment bankers and highly skilled equity market specialists who are able to judge the tone and depth of the markets in helping clients shape the size, structure and pricing for such transactions.

More broadly, to a greater or lesser degree, most of these large integrated financial groups also act as market makers across a broad range of financial instruments ranging from Treasury securities to OTC derivatives. As market makers, these institutions stand ready to purchase or sell financial instruments in response to their institutional (and sometimes governmental) clients and counterparties. As such, market-making transactions – by their very nature – entail substantial capital commitments and risk-taking by the market maker. However, the capital that is provided in the market-making process is the primary source of the liquidity that is essential to the efficiency and price discovery traits of financial markets. Moreover, in today's financial environment, market makers are often approached by clients to enter into transactions that have notional amounts that are measured in hundreds of millions, if not, billions of dollars. Since transactions of these sizes cannot be quickly laid off or hedged, the market makers providing these services to institutional clients consume large amounts of capital. Thus, only large and well capitalized institutions have the capital resources, the expertise and the very expensive technological and operating systems to manage these market-making activities. Having said that, it is also true that some of these activities are indeed high risk in nature. Thus, the case for greater managerial focus, heightened supervisory oversight and larger capital and liquidity cushions for trading and market-making activities are all part of the post-crisis reform agenda.

III. Alternative Approaches to Too Big to Fail

Before discussing alternative approaches to the Too Big to Fail problem there are three important points of perspective that provide some insight into the merits of these alternatives approaches as follows:

First; it is inevitable that at some point in the future, asset price bubbles, financial shocks and seriously troubled financial institutions will again occur. Surely, we can do a better job of reducing the frequency and damage associated with such events, but individually and collectively we are not wise enough to anticipate such events or to stifle their contagion hot spots before they unleash systemic risk factors. This reality does not, of course, imply that we are at the mercy of fate in efforts to better contain systemic risk but it does imply that we must be realistic in our ambitions and it certainly implies that great care and precision is needed in evaluating alternative approaches to Too Big to Fail.

Second; deliberations about systemic risk and Too Big to Fail must take account of the architecture of the so-called public safety net associated with financial institutions. While this architecture differs somewhat from country to country the more or less common features of the safety net include (1) governmental sponsored insurance on deposits usually up to some ceiling; (2) access to the account and/or discount window facilities of central banks; and (3) consolidated prudential supervision of institutions that have access to items (1) and (2). Historically the safety net was a "package deal;" institutions received the benefits of (1) and (2) in exchange for the burdens of (3).

Today, things are becoming more complicated in that the door is now open to a modified architecture of the safety net whereby systemically important institutions are likely to be subject to consolidated prudential supervision even if such institutions are not, even in

part, depositories and do not have access to this discount window except possibly in some extreme emergency. In the United States it appears likely that the responsibility for identifying “systemically” important financial institutions will be vested in some form of an Official Board or Council but how and where the line for systemically important institutions will be drawn is far from clear.

The framework for "today" that I have described above has a striking similarity to one that I outlined in a January 1987 lengthy essay that was entitled "Financial Market Structure – A Longer View." Over the period since 1987, the financial structure in the US evolved in ways that have many similarities with the evolution that was contemplated in that essay – but with one huge exception; namely, the essay warned that absent greater prior restraint in the financial intermediation process and absent more enlightened prudential supervision, the systemic risk problem might worsen. Unfortunately, events – and not only those associated with the current crisis – have graphically illustrated that the threat associated with financially driven systemic risk has not diminished but has sharply increased.

Third; given the global character of the financial intermediation process and the fact that virtually all large and complex financial institutions have a global footprint, it is very difficult to imagine how material differences in the architecture of the safety net for internationally active institutions and the structure of financial systems at the national level can exist without either or both (1) compromising the obvious benefits of the global system of finance; and (2) introducing major competitive distortions and/or new forms of regulatory arbitrage among institutions across countries or regions.

With those points of perspective in mind, and at the risk of considerable simplification, there are three broad approaches to mitigating systemic financial risk and containing the Too Big to Fail

problems that are being widely discussed as follows:

First; steps could be taken in legislative and/or regulatory terms to shrink the size of all large institutions (however defined) over time and/ to substantially limit the scope of activities conducted by such institutions to so-called "narrow" banking activities of deposit taking and lending. These narrow banks presumably would have deposit insurance, access to the central bank account and discount window facilities and would be subject to consolidated supervision.

Second; certain classes of "high risk" trading and principal investing activities would, over time, be removed from all large and complex institutions and housed in a separate "spin-off" entity that would not have insured deposits nor access to the central bank. The remaining "banks," however, would have insured deposits, access to the central bank and would be authorized to conduct a wider range of activities than the narrow bank alternative described above. However, depending on how and where the line is drawn between classes of activities, the risk-based spin-off approach would impact many, if not most, existing large and complex institutions. The "spin off" entities housing the high risk activities would almost surely be considered "systemically" important and thus subject to consolidated supervision.

Third; large and complex financial groups would remain largely intact subject to a number of conditions including (1) materially higher capital and liquidity standards for certain classes of trading and related activities; (2) much more aggressive and enlightened prudential supervision with a very strong bias toward prompt corrective action in the face of emerging problems; and (3) the ongoing responsibility of such institutions to actively engage in detailed contingency plans for shrinkage of activities and/or assets sales in the face of emerging problems. Such contingency plans would be regularly shared with supervisory authorities. The last feature of this approach is often referred to as the "Living Will."

As an extension of this, consideration might be given to the concept of "contingency capital" that has been suggested by a number of public officials and private observers. Essentially, the contingent capital concept contemplates that all systemically important institutions would maintain a block of supplementary capital above already robust capital positions in the form of debt convertible into common equity. The supplementary, or contingent capital, would be converted into equity if, for example, existing capital positions breached some quantitative trigger point as determined by the authorities. This concept is not without its own problems, not the least of which is that it might inadvertently result in a drift to lower levels of "base" capital.

My clear preference – guided by both philosophical and pragmatic considerations – is the third alternative. In saying that, I recognize that some might suggest that I am biased or conflicted by virtue of my place of work. While I accept that some might take that view and while I also accept the view all of us are influenced by our environment, I am very much at ease in saying that my views of this subject matter – in both of my professional careers – have always been driven by what I believe to be in the public interest.

With that said, my preference for alternative three reflects the following major factors:

First; looked at over the business and credit cycle the economics of traditional lending - particularly commercial lending – are at best uncertain – a fact that cannot be dismissed even with the perceived benefits of hold-to-maturity accounting for the loan book as a given. For some institutions and their shareholders the prospect of relatively low rates of return on equity might be quite acceptable and, over the long run, such low rates of return might help shrink the size of the banking system – an outcome which may not be a bad thing so long as it occurs in an orderly way over time. In any event, the potential implications of the economics of lending business over the cycle seems to me to be

particularly troubling for alternative 1 and, depending on exact configurations, it can also be troubling for alternative 2. More importantly, it is quite possible that narrow banks, lacking diversification in risks and revenues, could be a source of greater instability rather than a source of greater stability.

Second; for both alternatives 1 and 2 the task of carving up large and complex institutions in a sensible way strikes me as incredibly difficult even if there was agreement as to what "goes" and what "stays" and even if there were a very lengthy phase in or grandfathering provisions. Large integrated financial groups typically have multiple legal entities operating in multiple jurisdictions. Individual transactions may be initiated in one such legal entity and booked in another legal entity. In these circumstances, the "mechanics" of spin offs would be very complex. Netting and collateral agreements, close out documentation, contracts with customers and counterparties, membership rights and privileges in payments, clearance and settlement systems, technological and operating systems, risk management systems, transfer pricing and many other arrangements would have to be adapted to the new legal structure of the spin-off entity and the regulatory requirement of the entity itself and its affiliates. I may be wrong, but all of this strikes me as a Y-2K problem elevated by several orders of magnitude with huge implications for operational and reputational risk. Further, the risk profile of the spin-off entity would likely be higher, not lower, with potential adverse implications for systemic risk.

Obviously, given sufficient time and resources, the "carving up" approach could be made to work but the surviving spin-off institutions would, in most cases, still be large and still be complex but would also be less diversified and, in all likelihood, still seen as systemically important and thus, still subject to consolidated supervision.

Third; I believe that alternative three - when coupled with a well designed and well executed framework of "Enhanced Resolution Authority" represents the best approach to substantially mitigating the Too Big to Fail problem. Recognizing that no alternative is failsafe, alternative three, for starters, avoids the messy and risky need to carve-up all or most large and complex institutions. More importantly, the enhanced capital, supervisory and related initiatives associated with alternative three as described earlier should – by themselves – go some considerable distance in the direction of a greater stability and mitigation of Too Big to Fail. Having said that, the risk of the disorderly failure of systemically important institutions will never be zero. That being the case, the creation of a broader and more effective system of "Enhanced Resolution Authority" will get us closer to financial stability and closer to a setting in which direct governmental intervention to bail out large institutions can be reduced to some very low level but, realistically, not to zero.

III. Enhanced Resolution Authority

Reduced to its basics, the concept of Enhanced Resolution Authority is one that contemplates a statutory and regulatory framework in which an authorized governmental body could, in effect, take control of a large and complex financial institution that is experiencing serious or life threatening problems in order to organize an orderly wind-down of that institution in a setting in which shareholders are likely to be wiped out, boards and senior managers are dismissed and most classes of creditors are at risk.

However, in the highly charged environment that would almost surely accompany efforts to "resolve" such a situation, the practicalities of effective resolution are of staggering proportions. Indeed, there is a risk – however small – that an ill conceived or executed approach to enhanced resolution could be a source of heightened instability rather than stability. There is, however, a

relatively short list of guiding principles which I believe can go some considerable distance in insuring that Enhanced Resolution Authority can achieve its objectives including substantially mitigating the Too Big to Fail problem. Those broad principles include the following:

First; the authorizing legislation and regulations must not be so rigid as to tie the hands of the government bodies that will administer those laws and regulations because it is literally impossible to anticipate the precise circumstances in which the authorities will be required to act.

Second; in my judgment, the authority and responsibility to trigger the use of Enhanced Resolution Authority in a given situation should not be vested in any single governmental body even if a single body has much of the authority and responsibility to execute the resolution authority.

Third; to the maximum extent possible, Enhanced Resolution Authority should be administered using the open institution approach which probably means the troubled institution would be placed into conservatorship allowing that institution to continue to perform and meet its contractual obligations. The open institution approach has many benefits including (1) preserving the value of assets that might be sold at a later date; (2) minimizing the dangerous and panic prone process of simultaneous close out by all counterparties and the need of such counterparties to then replace many of the closed-out positions; and (3) reducing, but by no means eliminating, the very difficult and destabilizing cross-border events that could otherwise occur as witnessed in the Lehman episode. However, the open institution approach is not without its problems, the most sensitive of which is the question of how well an institution in conservatorship can fund itself. During the transition period, this might require some form of aggressively secured interim liquidity support from the official sector which would – by its terms – entail very low risk of loss by the official sector.

Fourth: to the maximum extent possible, the rights of creditors and the sanctity of existing contractual rights and obligations need to be protected. Indeed, if the exercise of Enhanced Resolution Authority is seen to arbitrarily violate creditor rights or override existing contractual agreements between the troubled institution and its clients, its creditors, and its counterparties, the goal of orderly wind-down could be compromised and the resultant precedent could easily become a destabilizing source of ongoing uncertainty.

Fifth; the effectiveness of Enhanced Resolution Authority pre-supposes that prompt corrective action by supervisory authorities is well established and is working effectively. This condition places a very large burden on supervisory authorities since history suggests that the practice of prompt corrective action is – at best – somewhat mixed.

Finally; the orderly wind-down of any large institution is a highly complex endeavor that will take patience, skill and effective communication and collaborations with creditors, counterparties and other interested parties. Shrinking a balance sheet or selling distinct businesses or classes of assets or liabilities may prove relatively simple but the winding down of trading positions, hedges, positions in financial “utilities” such as payments, clearance and settlement systems is quite another matter, especially since there are instances in which individual institutions essentially operate some such utilities.

Based on my own recollections, I can recall only three pre-crisis episodes in which such orderly wind-downs worked reasonably well. One was the Continental Illinois Bank in which FDIC resources and private resources were used. A second was Drexel in which no public or central bank money was used. The third was Long Term Capital in which no public money was used but the Fed played a major role as the honest broker in putting together the "club" of private institutions that provided the multi-billion dollar rescue package.

While these wind-downs all worked reasonably well, a massive and highly complex effort involving aggressive supervisory intervention and effective public sector/private sector cooperation were needed – all in a setting in which the wind-downs occurred in circumstances that were much less complex and threatening than is the case today with highly inter-connected institutions and markets.

These contemporary realities are the reasons why I, and others, have consistently placed so much emphasis on strengthening the infrastructure (or the "plumbing") of the financial system. Real progress has been and is being made in these efforts but much remains to be done in a setting in which success will only come with aggressive leadership from the public and private sectors and the commitment of very substantial resources.

In stating these principles, I am mindful that the public body responsible for the execution of Enhanced Resolution Authority must have broad powers and discretion and that such powers and discretion must be exercised with care. In saying that, I also recognize that these principles – as with most statements of principles – bring with them certain tensions. The most basic of these tensions is the challenge of orchestrating wind-downs that avoid disorder while insuring a high degree of fairness and equity in the process. That will not be easy but I am convinced that Enhanced Resolution Authority, together with other reforms that are on the drawing boards, offer the best hope for containing Too Big to Fail, enhancing financial stability and sustaining economic growth and rising standards of living.

Thank you.