FINANCIAL GLOBALIZATION AND POST-CRISIS PERSPECTIVES

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It has become obvious at least since September 2008 that we are going through a severe downturn. What we have instead is a *systemic crisis*, a much more severe disruption which puts the functioning of our entire capitalist system in question. These kinds of crises occur when structural changes in the modus operandi of our capitalist system have engendered underlying imbalances, which, in the absence of self-correction, explode into the open with paralyzing force. The objective of this paper is to analyze the past three major crises (1873-79, 1929-39, and 1979-82) identifying behavioral patterns about things they share in common, which may help us figure out what is happening today.

GLOBALIZAÇÃO FINANCEIRA E PERSPECTIVAS PÓS-CRISE

Tornou-se evidente, pelo menos desde setembro de 2008, que estamos atravessando uma grave crise. Hoje, vivenciamos uma crise sistêmica, um distúrbio muito mais grave que coloca em cheque o funcionamento do sistema capitalista. Este tipo de crise ocorre quando alterações estruturais no *modus operandi* deste sistema geram desequilíbrios, que, na ausência de autocorreção, explodem com força paralisante. Este artigo tem por objetivo analisar as três grandes crises passadas (1873-1879, 1929-1939 e 1979-1982), identificando padrões de comportamento, sobre o que têm em comum, que podem nos ajudar a descobrir o que está acontecendo hoje.

1 LESSONS FROM PAST CRISES

It has become obvious, at least since September 2008, that we are going through a severe downturn. The intensity of the retrenchment, whether looked at from the point of view of employment, production, trade, asset values or aggregate spending levels, confirms that this is not a normal recession of the kind we go through recurrently every four to seven years. Those kinds of adjustments tend to be shorter and less pronounced than the kind of crisis we are facing today. What we have instead is a *systemic crisis*, a much more severe disruption that challenges the functioning of our entire capitalist system. These kinds of crises occur when structural changes in the modus operandi of our capitalist system generate underlying imbalances, which, in the absence of self-correction, break out with paralyzing force. We had such instances of structural crises in 1873-79, 1929-39, and 1979-82.

While each of these past structural crises had its own unique context, there are nonetheless certain historic lessons to be drawn from them, things they share in common, which may help us figure out what is happening today. Specifically, we can draw three important conclusions from the behavioral patterns of those past three major crises:

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1.1 The intensity of financial instability

They all started with a period of heightened financial instability – the legendary "Panic of '73," the unprecedented stock market crash of October 1929, and the (in)famous monetary policy switch by the Fed in October 1979 in the wake of a major dollar crisis. One can make the argument, based on empirical data on each of these crises, that there is a generally positive correlation between the severity and length of the credit crunch at the onset of the crisis and the subsequent disruption of economic activity as the crisis plays out. This was especially evident in the wake of the Great Depression following the dual collapse of the international gold standard (September 1931) and the US banking system (1931-33). But in the other two crises, the credit system breakdown shaped the recessionary adjustments that followed.

In light of this connection, the current crisis shows all the signs of being a serious one. The amount of damage done to the global financial system in the wake of last year's near-collapse of a vast shadow banking system built around securitization and credit derivatives threatens the solvency of leading banks and operational capacity of key markets - conditions which are difficult to overcome. In the meantime, desperate attempts by excessively leveraged borrowers across the entire spectrum of our debt-dependent economy to avoid default by selling off their assets in steadily declining markets puts the entire economy through what Irving Fisher (1933) has so aptly called a *debt-deflation spiral* (and what today we refer to much more prosaically as "deleveraging"). Such conditions run the risk of depression-like conditions unless reversed as soon as possible.

1.2 The global dimension

Each of these four structural crises started in the United States, but ultimately engulfed the world economy. Reaching beyond its country of origin, the crisis deepened as it widened. In other words, global contagion by the crisis served as a negative multiplier, making the downturn worse. There is, one may even argue, a correlation between its geographic spread and its depth. That connection was most brutally observed during the 1930s Great Depression, when America's 40% across-the-board tariff under the 1930 Smoot-Hawley Act, the subsequent German debt moratorium, and Britain's suspension of the gold standard in September 1931 took down the entire world economy. This experience makes it that much more important to avoid protectionist responses today, lest we want to repeat that horrible experience of turning a local downturn into a worldwide depression.

Today's crisis is already remarkable in how much it has eroded all the drivers of globalization, triggering sharp declines in trade, portfolio investments, direct investments and lending not seen since the 1930s. That too bodes ill for what we are facing, since the speed and degree of declines in these cross-border activities today is worse than in the 1870s or the 1980s.

1.3 Ending systemic crises

A third lesson to draw from past systemic crises is that they do not end on their own. Unlike self-correcting recessions, normal downturns in the course of the economy's cyclical fluctuations which the economy gets out of by cutting excess supplies below demand, the more severe systemic crises do not have an inherent way out. There are two reasons for this structural inability. One is the damage typically done to the banking system during such crises (which is why they are systemic in the first place), requiring long-term fixes to resuscitate. The other is the force of individually rational responses to the crisis, which make matters worse when taken together and projected onto the macroeconomic level. Spending cutbacks, spikes in household saving, business lay-offs, and other micro-rational responses all serve to reinforce the negative multiplier effects that pull the economy down. Hence, it is safe to conclude that systemic crises can only be overcome by strong policy responses and structural reforms.

If we apply these lessons to our situation today, we must conclude that the crisis we are facing today is a major one likely to last for several years, cause massive losses in income and employment and engulf the entire planet. Both the degree of the financial instability preceding it and the global contagion witnessed since it broke out indicate that this particular crisis is among the great ones in the annals of industrial capitalism. We have a severely damaged banking system and dysfunctional financial markets that have triggered a debt-deflation spiral likely to sharply limit trade and foreign investment flows. So it all depends on the policy response to get us out of this mess, since the crisis is not likely to subside on its own.

2 A UNIFIED POLICY RESPONSE

When looking at how governments have reacted in the face of a rapidly deteriorating economic scenario following the deflationary shock of Lehman's collapse on 15 September, 2008, we cannot but be impressed with the speed of their response. Even the lame-duck Bush Administration felt compelled to initiate a \$700 billion bank bailout, the now-infamous Troubled Assets Relief Program (TARP), after having earlier given every American household a tax-credit check to stimulate aggregate demand (in Spring 2008). Here again it seems obvious that lessons from the past have been well learned, especially with regard to the long period of inaction by the Hoover Administration following the stock market crash of October 1929 and its devastatingly misplaced policies once it decided to act (e.g. spending cuts, protectionism, and refusal to let the Federal Reserve act as lender of last resort in proportion to the extent of the banking crisis). No, governments were not going to repeat the same mistakes again this time. They reacted swiftly instead. Perhaps even more interesting is the fact that governments have reacted so similarly, so much in unison. Even though differing in degree, their responses have centered around the same three focal points of crisis management:

2.1 Monetary policy

Central banks across the world, led by the Fed, have rapidly and significantly lowered interest rates since the onset of the crisis in August 2007 (and even more so since the crisis entered its brutal debt-deflation phase in September 2008). Even the notoriously tough-minded European Central Bank has taken significant steps in that direction. The reason for this unified monetary policy stance is quite obvious, namely the need to bring the de-leveraging process under control before it allows deflation to take hold in the output and labor markets as well as in the minds of a majority of actors.

Once started, deflation is hard to get rid of and is arguably a more painful problem than inflation. For one, with buyers expecting prices to come down even more, they are inclined to wait for this to happen. This wait-and-see attitude, no doubt a self-fulfilling prophecy that justifies the same caution going forward, encourages systemically depressed levels of economic activity. Moreover, deflation forces debtors to repay with higher-valued money and thus makes existing debt levels much more burdensome. This is dangerous, especially in light of historically high levels of indebtedness among many consumers and financial institutions today. Thus, for both these reasons, it is imperative to prevent the asset-deflation process associated with de-leveraging from permanently spilling over into product and labor markets. We are obviously getting closer to this critical threshold every day, as evidenced by the sharply decelerating inflation rates having already moved into negative territory when measured as producer price index and/or more generally on a quarterly (rather than annual) basis. Luckily, we started this deceleration process from a relatively high level of inflation across the globe due to the bubble in commodities immediately preceding the 2007 subprime crisis.

The only way for central banks to do their fair share in the fight against the debt-deflation spiral is to push down nominal interest rates under their control hard and fast. What we need are <u>negative</u> "real" (i.e. inflation-adjusted) interest rates to lessen overall debt burdens, flood the stressed credit system with liquidity, and allow hard-pressed banks some breathing space from steeper yield curves, giving them a more profitable spread between the interest they pay on their (short-term) liabilities and the interest they earn on their (longer-term) assets. Ben Bernanke, the chairman of the Fed and an economist renowned for his academic work on deflation (see, for instance, Bernanke, 2002; 2005), understood this right away. He has thus tried to lower the two interest rates under the Fed's control at least as rapidly as the deceleration of inflationary pressures, if not faster, to provide the U.S. economy with the needed boost from a sustained period of negative "real" interest rates in the hope of thereby avoiding the settling in of widespread deflationary pressures and expectations. When Henrique Meirelles, the president of Brazil's central bank, boasts that Brazil's real interest rates are now the lowest they have been for quite some time, as he did yesterday in this forum, he does not acknowledge sufficiently that this is indeed happening amidst a remarkably violent downturn and that, in light of the deflationary pressures at work across the globe, Brazil's "real" interest rates better be that low or even lower. Henrique Meirelles falls more into the camp of Jean-Claude Trichet, the head of the European Central Bank, and Mark Carney, the head of the Canadian central bank, who worry too much about inflation, yesterday's problem, and are therefore too cautious in fighting this crisis. There is room for the SELIC to drop more swiftly.

As inflation falls to zero and threatens to turn into widespread deflation, central banks will bring their target interest rates to zero as well, as has already been done by the Fed, the Bank of England, and the Bank of Japan. There will be a convergence in that direction as the depth and length of the global crisis become clearer (especially after the current optimistic expectations of an imminent turnaround in late 2009 or early 2010 have proven false). At that point, traditional monetary policy ceases to function normally, since central banks will by then have been deprived of their major policy tool. New, more unorthodox monetary policy measures should be adopted at that point. We have already seen how the Bank of Japan fought a decade of deflation during the 1990s with so-called "quantitative easing" that boosted bank reserves through purchases of government securities and other assets. And, even more tellingly, Bernanke's Fed has over the last year and a half launched nearly twenty new liquidity injection programs involving asset swaps aimed at easing credit conditions and unclogging blocked financial markets (if not replacing them altogether). We shall see a lot more experimentation in that direction by many, if not all, of the G-20 central banks.

2.2 Bank bailouts

As a complement to zero interest and credit-easing monetary policy, central banks have also tried to deal with a severely damaged banking system no longer strong enough to supply the wider economy with sufficient amounts of credit. In retrospect, it was actually quite remarkable how rapidly governments reacted to the cascade of bank failures in the United States and the European Union during September 2008, pushing beyond their traditional lender-of-last-resort interventions aimed at individual bank rescues designed to deal with isolated failures. Realizing right away the scope of the shock triggered by the collapse of Lehman, the U.S. and the EU governments scrambled for about a week for an adequate system-wide response before Gordon Brown provided the answer with an ingenious combination of bank liability guarantees, loss insurance for impaired asset values and injections of public funds to recapitalize more or less insolvent banks. Since then, most governments in the OECD club of rich nations (e.g. EU members, US, Japan, Australia) have introduced similar bank rescue packages which they have already had to adjust and extend in many instances.

2.3 Fiscal stimulation

As Keynes (1936) understood so clearly, monetary policy loses much of its effectiveness during major systemic crises, when everybody wants to cut back spending and nobody wants to borrow. At that point, the banks may well end up hoarding much of the liquidity injected by the central bank, a situation he characterized as a *liquidity trap* and one which we surely face once again today. In such a situation, it becomes imperative for governments to step in as source of additional demand. With the private sector cutting back in a series of negative feedback loops, only government has the means to boost aggregate spending levels in counter-cyclical fashion. Depending on prevailing multiplier effects (which differ greatly from country to country in terms of effectiveness of automatic fiscal stabilizers as well as in terms of different types of fiscal stimulation), governments need to boost budget deficits in proportion to the overall decline of economic activity they are facing in their domestic economies. This calculation explains Obama's \$787 billion stimulus package of February 2009. Of course, other leaders (especially those in the €-zone of the EU) have acted much less ambitiously, worried about the longer-term implications of taking on so much new public debt.

Looking at the various stimulus packages passed by the G-20 countries, including China's ambitiously large package or Brazil's growth acceleration program (PAC), we see that they have tended to combine some tax relief, measures to shore up income maintenance and other social insurance programs, revenue-sharing help for lower levels of government in the provinces and municipalities, as well as infrastructure projects in the areas of transportation and construction, et cetera. In this regard, we have even seen welcome moves to invest in a broader and more modern range of infrastructure projects to boost energy efficiency, alternative energy sources, environmental improvements, education, health care, and affordable housing. The latter trend, even though in most instances just a fairly modest beginning, promises to yield important long-term benefits for the national economies concerned.

These policy responses, albeit steps in the right direction, were too weak and too late to prevent a remarkably sharp decline in production, trade, and employment in the last quarter of 2008 and first quarter of 2009. In these six months of economic free fall, the world economy has lost 20 million jobs, three million in the United States alone. While we must acknowledge that such policy measures suffer a certain time lag and hence cannot have their effectiveness assessed until later, they may not have yet sufficed to turn the world economy around toward recovery. We shall see only later, say at the end of 2009 and in early 2010, whether or not this is indeed the case. The danger of continuous decline, however, is very deep, once we have started such a rapid downward spiral of de-leveraging, asset deflation, spending cutbacks, and job losses. These

forces of retrenchment feed each other, and are further reinforced by the mass psychological damage to confidence and risk taking. Keynes' prescient concepts of liquidity trap (i.e. hoarding of cash reserves by frightened and damaged banks) and paradox of thrift (i.e. increase in saving by fearful households that further cut already depressed consumer spending) are once again in full swing. And, as we saw during the Great Depression of the 1930s, whenever those precaution reactions are unleashed, they are very difficult to stop and turn around. This is especially so once deflationary expectations have taken root among the wider public. Then spending threatens to shrink further, as people decide to delay purchases and so take advantage of future price declines. If indeed the downturn continues unabated, we shall undoubtedly see further policy efforts.

3 THE CHALLENGE OF INTERNATIONAL POLICY COORDINATION

Apart from having reasons to worry whether the policy responses among the various countries have been sufficiently large and timely, we also have to understand that these strictly national initiatives do not really address the specifically internationalized nature of the crisis. With globally interconnected financial markets having frozen across borders, we have a synchronized global downturn. It has already become dramatically clear during the course of the past year that one country's or region's decline reinforces the downturn in other places, and vice versa. Just as global channels of cross-border economic activities had a positive multiplier effect boosting growth, so has their simultaneous decline – crystallized around a stunning shrinkage of global trade, massive repatriation of foreign investments, and capital flight pushing up risk premiums on any less-than-stellar securities – exacerbated the collapse of domestic economic activity in so many parts of the world.

So we have had a negative global economy multiplier reinforcing domestic downward spirals, a kind of de-globalization that is undoing and reversing much of the global growth stimulus of recent years. This has already meant a dangerous squeeze for emerging market economies dependent on exports and capital imports, and it is not clear that even Brazil will be able to escape the negative consequences of shrinking trade, reversal of capital flows, and lack of reliable trade finance. Export-dependent economies are therefore especially vulnerable to the negative de-globalization multiplier.

The global dimension of this crisis requires a good deal of international cooperation and policy coordination. For instance, it is clear that we need a substantial boost in the lending capacity of multilateral lenders (e.g. International Monetary Fund, World Bank, regional development banks) to help emerging market and developing economies compensate the reversal of private capital flows, secure more trade finance, and get help for domestic stabilization

programs. We will also have to coordinate bank bailout schemes as well as unconventional monetary policy efforts across borders to make sure that the emerging new financial system, which these efforts are contributing to create, will have a minimum of cross-border harmonization so as to secure a global level playing field for an inherently transnational financial system. If not, we run the risk of financial protectionism, which will exclude many countries from adequate access to international capital supplies. Thirdly, there may well be a need for a globally coordinated fiscal stimulus program to counteract the shrinkage of trade-based demand, and such spending may usefully be directed towards a whole host of supra-national public goods and infrastructure issues - climate change, food production, alternative energy, public transport, community health care, education - which arguably could (and should) serve as the new global growth pillars of our post-crisis economy. Finally, we may in that context also wish to address the prevailing global imbalances centered around unsustainably large current account imbalances by having the surplus countries, like Germany, Japan, or China, undertake disproportionately larger stimulus packages that boost (hitherto inadequate) domestic spending. This would make it much easier for the deficit countries, especially the United States, to go through their adjustments without triggering dangerous debt-deflation spirals that threaten to push the entire world economy into depression.

Unfortunately, such needed increase in international policy coordination runs afoul of existing institutions at the center of world economy management. Those institutions, such as IMF, World Bank, World Trade Organization, Bank for International Settlements, G7, etc. were shaped decades ago, have never been adjusted to changing realities, and are therefore utterly outdated, even anachronistic, when it comes to their functions, their governance structure, their policy tools. They are not capable of dealing with the challenges of today's global economy. So in the face of this globally synchronized downturn, the worst crisis in seven decades, we run the risk of compounding inadequate domestic policy responses with an institutional inability on an international scale to save the world economy from disintegrating.

Luckily, there are two signs of hope amidst this otherwise dismal situation which allow us a glimmer of optimism. One is the arrival of Obama in the White House, giving us a charismatic and popular new US president who takes an activist approach to this crisis and has moved with lightning speed to address some of the key crisis management challenges dealing with this crisis in the first 100 days of his presidency – large fiscal stimulus, financial institutions repair, foreclosure modification program to deal with the housing crisis and emphasis on global coordination – while also stressing the need to lay the foundations for renewing America's long-term growth capacity by promoting investments in infrastructure,

education, health care (including stress on cost containment) and alternative energy. The other is the formation of a new global governance institution in the form of the G-20 and its commitment to convene regularly in order to launch coordinated policy responses. While the first two summits (in New York on 15 November 2008 and London on 2 April 2009) have already proven how difficult it is to have twenty governments agree on anything substantial and then translate their general announcements into concrete reality, they have at the same time shown a remarkable degree of willingness for collective action. I am thinking here in particular of the G-20's agreement to revamp and boost the resources of multilateral organizations responsible for global crisis management (especially the International Monetary Fund and the Financial Stability Forum), to define the principles of regulatory reform pertaining to financial institutions and markets, and to forsake the temptations of protectionism. So the G-20 mechanism, while fraught with all the shortcomings of global governance in an era still dominated by national interests, is an important first step in the direction of global crisis management on a level that befits the level of globalization already achieved.

4 THREE TIME DIMENSIONS OF REFORM

As befits a structural crisis of the kind we are currently confronting, we need to contemplate major policy reforms to get us onto a path of sustainable recovery. What often gets ignored in mainstream discussions of such reform is that there are different types of reform depending on their respective time dimensions, and they have to be properly integrated. In other words, we must distinguish between necessary short-term measures, medium-term initiatives, and long-term transformations. And then, in addition, we need to make sure that these three time-differentiated paths of structural change are coordinated in such a fashion that one leads to the other and they all support each other. This is the only way that we can affect major structural change in our system and make sure it works effectively towards greater stability.

4.1 Short-term reforms

While we have put into place stimulative fiscal and monetary policies to counter the dramatic global reduction of aggregate demand, and have also managed to halt the disintegration of the banking sector, any chance for recovery depends on bringing the severely damaged banking sector back to a modicum of health and strength. That system is the heart of our economy, and one cannot expect a body to move swiftly as long as it has a weak heart. Some countries are better off in this regard than others. Take, for instance, China, Canada, or even Brazil. More traditional bank structures and tougher regulatory constraints (see e.g. Brazil's insistence on large reserve requirements for banks) in each of these countries have

ironically left the major banks there much less exposed to the speculative excess that has felled their American or European counterparts. In the United States or Europe, however, we have unfortunately ended up with severely damaged banking systems that will limit the ability of these regions to recover. Massive rescue operations by the Fed, the Bank of England, the European Central Bank, the Swiss National Bank, or the Russian central bank have prevented the collapse of too-big-to-fail banks, especially after the Lehman bankruptcy taught everybody about the risks of letting a systematically important financial institution fail. But in each of these areas we have yet to figure out how to turn these saved zombie banks back into full-bodied and strong lenders. Of course, we know that those banks will need to have substantially larger capital cushions in the future, and such recapitalization initiatives may come about with funding support from the stock market, other financial institutions (e.g. private equity funds), or the government. The Obama Administration's idea of stress tests for nineteen systemically important US financial institutions to determine their future capital needs is an important first step in that direction. Equally urgent is dealing with all the toxic assets still on the books of the world's leading banks that are weighing them down by causing additional losses, eating up already scarce capital, and undermining public confidence. The US Treasury, first under Paulson in 2008 and then Geithner in 2009, has tried to figure out without success how to set up a new infrastructure of publicly funded buyers who would purchase toxic assets of US banks at a discount. Other countries, notably Britain and Germany, have started down a similar path, aiming to split their most vulnerable and loss-ridden banking institutions into "good" and "bad" banks and then liquidate the latter gradually. We know from the experience of Sweden and Japan in the 1990s that systemic banking crises can only be resolved if and when banks have a way to get rid of their impaired assets without suffering exceedingly large write-down losses in the process. We should not waste too much time before effectively tackling the issue of toxic assets on the books of banks, because the depth of the ongoing global downturn threatens to leave already weakened banks with more and more impaired assets.

As we try to nurse sick banks back to good health, we also need to recognize that the current crisis was primarily the result of regulatory failure and therefore can only be resolved with a proper effort at re-regulation. While there are discussions and preparatory efforts in that direction under way in all the major developed economies, we need a globally coordinated approach to the issue, since banks are today truly transnational in nature and as such operate beyond national boundaries. It is thus imperative to come up with a consensus as to what is needed for an effective global regulatory regime, an effort perhaps best carried out in the scope of the G-20, the Financial Stability Forum, and/or the Bank for International Settlements. Over the last six months, we have begun

to identify areas of agreement as to necessary steps – larger and more resilient capitalization levels for banks that are applied countercyclically (e.g. see Spain's system of "dynamic provisioning"); tighter supervision of systemically important financial institutions with stronger coordination among national supervisors; tougher disclosure-of-information rules; caps on executive compensation and better incentive systems for banking executives; and more stable structures for financial markets. These areas of agreement are all highlighted in three crucial reports published this month (March 2009) on the banking crisis and on what should be done about it in terms of regulatory and supervisory initiatives – the De Larosière Report for the European Commission, the Turner Report furnished by the head of Britain's Financial Services Authority, and the Geithner Report from the US Treasury. All of these are available on the internet, and worth reading.

Finally, both the Obama Administration and European leaders have committed to a new level of regulatory intervention, that of macro-prudential supervision. This involves setting up a systemic risk regulator that tries to identify the emergence of unsustainable bubbles, excessive leverage, and/or any other development in the credit system with a large potential for eventual disruption. This plan raises several important questions. The first is who should be responsible for systemic risk regulation, and here the Americans believe firmly that it should be the job of central banks like the Federal Reserve. Furthermore, what should the powers of such a macro-prudential regulators be to stop any identified excess from exploding the whole system? Such tools, such as leverage ratios, asset-based reserve requirements and mandatory equity stakes in high-risk funding schemes, may be useful here. There is, thirdly, the key question as to whether the monetary authorities will be capable of identifying systemic risk in the making. This requires observers who have a different mindset than the one presented by the mainstream vision of automatically self-balancing markets and rational investors. Instead, systemic risk regulators will need to be well versed in theories of financial crisis dynamic, notably Hyman Minsky (1964, 1982, 1986) on financial instability.

4.2 Medium-term reforms

The dual task of repairing and re-regulating the financial services sector will be undertaken over the next year or two in most of the world's major economies. As these reforms are being implemented, attention will shift to the second dimension of the current crisis – global imbalances and the prevailing international monetary system that produced them. The long boom preceding this crisis had been driven by the ability of the United States to run up large and continuously growing trade deficits that were financed automatically by surplus countries keeping their reserves denominated in US dollars. In that sense, the United States served a useful "locomotive" function in the world

economy, enabling many other countries – industrial nations (Europe, Japan), emerging market economies (China, Brasil, etc), and commodity producers (e.g. OPEC, Russia) – to push export-led growth. This interdependence between the United States as the "buyer of last resort" for the rest of the world and export-driven surplus countries became especially pronounced after 2003 when a US housing bubble gave American families owning a home (and that includes nearly 70% of all households) the means to borrow growing sums against the rising values of their homes. At its peak in 2006, US consumer debt and the costs of servicing that debt reached record levels (of 137% of GDP and 18% of disposable income respectively), while the US collectively spent 107 dollars for every 100 dollars it produced. These are unsustainable magnitudes, and the current crisis is not least the result of a breakdown of this growth configuration.

As the crisis unfolds, we will come to realize that we will not be able to return to the status quo ante. In other words, the US consumer will no longer be able to buy up the surplus goods of export-dependent producers across the globe. What we have today is a major financial crisis that turned into a global overproduction crisis. This change in the nature of the crisis will not only manifest as major bankruptcies of industrial firms (e.g. American car manufacturers, such as General Motors and Chrysler) and retailers (Circuit City in the US). No, the overproduction crisis will also express itself in terms of added financial instability. For one, the pain of "bad debt" spreading on the balance sheets of banks all over the world will make them even weaker than they are already. Perhaps even more dramatic, however, will be a crisis brewing over government debt. This may hit a number of countries which have seen dramatic increases in budget deficits and lack the means to bring them under control in the time required for such adjustments, as for instance Britain or the Eastern European countries (from Hungary to Latvia). The most important target of a crisis of confidence in government debt may, however, be the United States whose budget deficit has risen from about 3% of GDP before the crisis to 12% per annum over the next few years. Obama understands the dangers of having such huge deficits for too long, but the members of the US Congress, and the political climate of the country at large, do not want to take spending-restraint and/or revenue-raising measures to decrease those deficits over time.

The key here is to understand that, once investors start worrying about US budget deficits, they will trigger a crisis of confidence in the US dollar and its world money status, thus starting to question the current international monetary system that has given the US dollar a dominant role it no longer can or must play. That chapter of the crisis dynamic may not be too far off, and it is in that significant context that there is a growing chorus among Chinese policy makers

expressing worries about China's excessive accumulation of dollar-denominated reserves. Even though the dollar has strengthened over the last year as panicky investors looked at the world's vehicle currency as a safe haven, this strength is only temporary. We may soon have a reversal towards a much weaker dollar and rising interest rates on US Treasuries, endangering any recovery and setting the stage for a deeper crisis of the international monetary system.

We may then move from the asymmetry between America's external deficits and the rest of the world's surpluses to a more complicated system of three self-contained currency blocs, with free trade and capital flows within each but protectionist, adversarial relations between them. One such bloc is led by the United States and based on the continued dominance of the dollar as reserve and transaction unit of account among bloc members. It is not clear how many or which countries such a bloc will comprise in the end. A second bloc will emerge around the euro and comprise non-EU Europe as well as the non-European part of the Mediterranean and some of Europe's former colonies. Finally, China will take increasingly aggressive steps to deregulate the yuan and so make it circulate internationally, if for no other reason than to escape its current predicament of a dollar trap. Thus a Chinese zone of influence will emerge, not just in Eastern Asia, but also in some areas of Africa and Latin America where China has made large resource and cooperation commitments in recent years.

This triadic configuration of the world economy will be difficult to manage as the three currency blocs compete for influence and markets. Commodity producers (OPEC) and large emerging market economies (Brazil, India, etc.) will try to diversify their reserves among all three key currencies and so come to hold the key to the stability potential of such a fragmented system. Still, the inherent contradiction between monetary fragmentation and financial concentration (with the crisis having left global finance controlled by even fewer gigantic transnational banks) will require careful management and the introduction of new policy mechanisms for that purpose. We are in this context bound to return to the idea of John Williamson (1983) for a system of target zones among the world's leading key currencies to keep the world economy from excessively large currency price shocks triggered by the tensions of choice among three nearly equal rivals. Such exchange rate stabilization, first tried in the failed experiment among the G-7 countries in the Louvre Agreement of 1987, requires a strong measure of international policy coordination, in particular the ability of the leading powers at the center of each key currency bloc (US, Germany, China) to contain any balance-of-payments disequilibria among them and counterbalance through policy cooperation any developing asymmetries that threaten to be disruptive if left unchecked.

4.3 Long-term reforms

At the same time there is the distinct possibility that we will over the medium term take important steps towards an entirely different international monetary system, one no longer based on national currencies as international exchange medium. It is time to return to an idea developed by John Maynard Keynes near the end of his life in preparation for the Bretton Woods Conference, that of a new economic world order rooted in a new supra-national form of world money (which he termed "Bancor") issued and managed by an international clearing union (see Keynes, 1941; also Guttmann, 1994 for an updated version). We already have an embryonic form of such supra-national money, namely the Special Drawing Rights (SDRs) issued by the International Monetary Fund. As it stands, the SDR is a basket of four key currencies with a dominant share for the dollar, followed by the euro, and small shares for the pound and yen. At some point soon the SDRs will come to include the yuan, and Chinese officials have in recent weeks already begun to discuss proposing such an adjustment.

But there are bigger changes under way with regard to the SDRs, notably a new large issue that would boost the crisis-fighting resources of the IMF at a time when a growing number of its members will need assistance to survive the global downturn intact. This, it seems, is going to be on the agenda of the next G-20 meeting in London. There has not been a new issue of SDRs for decades, as the United States have consistently vetoed such a step which could undermine the special world money status of the US dollar. So a new issue of SDRs, especially in the \$250bn range as is being discussed in the run-up to the London Summit of the G-20 leaders, would be a very significant step. Still, even such an agreement may be difficult to carry out in practice since any new issue depends on parliamentary approval of the countries whose currencies comprise the SDR basket. In other words, US Congress would have to approve a large budget allocation of US dollars to the IMF for any such new issue of SDRs. There is likely to be a lot of political opposition among both right-wing and left-leaning members of Congress, as worries about US spending combine with resistance to bail out bankers and help foreigners. It is precisely at that point that we might see a new discussion, namely how to depoliticize the issue of SDRs and give a beefedup IMF more control in the process. For the SDRs to become a useful counterpart to the dollar and other key currencies, and eventually the new centerpiece of a broader institutional reform, it will have to be issued more easily and freely. The IMF, for instance, could issue bonds in the world's capital markets that would be used to back SDRs and may eventually even be denominated in SDRs. We may then also see rapidly growing use and circulation of SDRs among private parties so that this new form of world money can grow to take over the international monetary system. At that point the IMF, in cooperation with the national central

banks, could set up Substitution Accounts to absorb excess dollars, euros, and yuan sold by anyone willing to hold SDRs instead.

We can therefore envisage a long transition period where the SDRs may compete with the key currencies. If that is the case, it may behoove us to find a mechanism for electronically earmarking SDRs within an officially controlled payment system. In this way we could get newly issued SDRs directed to finance socially useful and growth-promoting activities. It would then be conceivable to set up a key part of the world economy in an entirely different way than we are used to today. Using specifically earmarked SDRs, we could fund provision of global public goods affordably, from alternative energy sources, environmental preservation, organic food production and distribution, education, research, community health care, to economic and political security, as the new growth pillars of the world economy (especially if and when the currently organized world economy cannot replace the US consumer as the center of its growth dynamic). Perhaps even more interesting would be the idea of using earmarked SDRs to build an alternative progressive financial system which would integrate mutual savings banks, funding cooperatives, micro-finance schemes, partnership-based investment banks, non-profit credit unions, and socially responsible mutual or pension funds into the SDR-based payments system. Such a system would naturally be inclined to fund public good growth pillars. We could reinforce such a reconstituted socially oriented set of institutions with new global taxes in support of our public good objectives, such as the Tobin Tax on financial crossborder transactions or a carbon tax to move away from fossil fuels. Be that as it may, the idea would be to have this new progressive, SDR-based system compete side by side with the post-crisis system of profitseeking financial institutions and their use of key currencies in international transactions. If, as I suspect, the SDR system manages to outperform the narrow profit-seeking system and attract ever-larger resource allocation through a system of substitution accounts, then we will have used this crisis to put in place a gradual and logically compelling transition towards a much better and more humane socioeconomic system that befits the challenges we face together as a planet in the 21st century.

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