

The 2008 financial crisis and neoclassical economics

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The 2008 global financial crisis was the consequence of the process of financialization, or the creation of massive fictitious financial wealth, that began in the 1980s, and of the hegemony of a reactionary ideology, namely, neoliberalism, based on self-regulated and efficient markets. Although capitalism is intrinsically unstable, the lessons from the stock-market crash of 1929 and the Great Depression of the 1930s were transformed into theories and institutions or regulations that led to the “30 glorious years of capitalism” (1948-1977) and that could have avoided a financial crisis as profound as the present one. It did not because a coalition of rentiers and “financists” achieved hegemony and, while deregulating the existing financial operations, refused to regulate the financial innovations that made these markets even more risky. Neoclassical economics played the role of a meta-ideology as it legitimized, mathematically and “scientifically”, neoliberal ideology and deregulation. From this crisis a new capitalism will emerge, though its character is difficult to predict. It will not be financialized but the tendencies present in the 30 glorious years toward global and knowledge-based capitalism, where professionals will have more say than rentier capitalists, as well as the tendency to improve democracy by making it more social and participative, will be resumed.

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JEL Classification: E30; P1.

The 2008 global financial crisis will remain in the history of capitalist development not only for its depth and scope, but also for the radical fiscal and monetary policies that were adopted to reduce its economic consequences and avoid a depression. Why did it happen? Why did the theories, organizations, and institutions that emerged from previous crises fail to prevent this one? Was it inevitable given the

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unstable nature of capitalism, or was it a consequence of perverse ideological developments since the 1980s? Given that capitalism is essentially an unstable economic system, we are tempted to respond to this last question in the affirmative, but we would be wrong to do so. In this essay, I will, first, summarize the major change to world financial markets that occurred after the end of the Bretton Woods system in 1971, and associate it with *financialization* and with the hegemony of a reactionary ideology, namely, *neoliberalism*. Financialization will be understood here as a distorted financial arrangement based on the creation of artificial financial wealth, that is, financial wealth disconnected from real wealth or from the production of goods and services. Neoliberalism, in its turn, should not be understood merely as radical economic liberalism but also as an ideology that is hostile to the poor, to workers and to the welfare state. Second, I will argue that these perverse developments, and the deregulation of the financial system combined with the refusal to regulate subsequent financial innovations, were the historical new facts that caused the crisis. Capitalism is intrinsically unstable, but a crisis as deep and as damaging as the present global crisis was unnecessary: it could have been avoided if a more capable democratic state had been able to resist the deregulation of financial markets. Third, I will shortly discuss the ethical problem involved in the process of financialization, namely, the fraud that was one of its dominant aspects. Fourth, I will discuss the two immediate causes of the hegemony of neoliberalism: the victory of the West over the Soviet Union in 1989, and the fact that neoclassical macroeconomics and neoclassical financial theory became “mainstream” and provided neoliberal ideology with a “scientific” foundation. Finally, I will ask what will follow the crisis. Despite the quick and firm response of governments worldwide to the crisis using Keynesian economics, in the rich countries, where leverage was greater, its consequences will for years be harmful, especially for the poor. Yet I end on an optimistic note: since capitalism is always changing, and progress or development is part of the capitalist dynamic, it will probably change in the right direction. Not only are investment and technical progress intrinsic to the system, but, more important, democratic politics – the use of the state as an instrument of collective action by popularly elected governments – is always checking or correcting capitalism. In this historical process, the demands of the poor for better standards of living, for more freedom, for more equality and for more environmental protection are in constant and dialectical conflict with the interests of the establishment; this is the fundamental cause of social progress. On some occasions, as in the last thirty years, conservative politics turns reactionary and society slips back, but even in these periods some sectors progress.

FROM THE 30 GLORIOUS YEARS TO THE NEOLIBERAL YEARS

The 2008 global crisis began as financial crises in rich countries usually begin, and was essentially caused by the deregulation of financial markets and the wild speculation that such deregulation made possible. Deregulation was the historical

new fact that allowed the crisis. An alternative explanation of the crisis maintains that the US Federal Reserve Bank's monetary policy after 2001-2002 kept interest rates too low for too long – which would have caused the major increase in the credit supply required to produce the high leverage levels associated with the crisis. I understand that financial stability requires limiting credit expansion while monetary policy prescribes maintaining credit expansion in recessions, but from the priority given to the latter we cannot infer that it was this credit expansion that “caused” the crisis. This is a convenient explanation for a neoclassical macroeconomist for whom only “exogenous shocks” (in the case, the wrong monetary policy) can cause a crisis that efficient markets would otherwise avoid. The expansionary monetary policy conducted by Alan Greenspan, the chairman of the Federal Reserve, may have contributed to the crisis. But credit expansions are common phenomena that do not lead always to crisis, whereas a major deregulation such as the one that occurred in the 1980s is a major historical fact explaining the crisis. The policy mistake that Alan Greenspan recognized publicly in 2008 was not related to his monetary policy but to his support for deregulation. In other words, he was recognizing the capture of the Fed and of central banks generally by a financial industry that always demanded deregulation. As Willen Buiter (2008, p. 106) observed in a post-crisis symposium at the Federal Bank, the special interests related to the financial industry do not engage in corrupting monetary authorities, but the authorities internalize, “as if by osmosis, the objectives, interests and perceptions of reality of the private vested interests that they are meant to regulate and survey in the public interest”.

In developing countries financial crises are usually balance-of-payment or currency crises, not banking crises. Although the large current account deficits of the United States, coupled with high current account surpluses in fast-growing Asian countries and in commodity-exporting countries, were causes of a global financial unbalance, as they weakened the US dollar, the present crisis did not originate in this disequilibrium. The only connection between this disequilibrium and the financial crisis was that the countries that experienced current account deficits were also the countries where business enterprises and households were more indebted, and will have more difficulty in recovering, whereas the opposite is true of the surplus countries. The higher the leverage in a country's financial and non-financial institutions and households, the more seriously this crisis will impinge on its national economy. The general financial crisis developed from the crisis of the “sub-primes” or, more precisely, from the mortgages offered to subprime customers, which were subsequently bundled into complex and opaque securities whose associated risk was very difficult if not impossible for purchasers to assess. This was an imbalance in a tiny sector that, in principle, should not cause such a major crisis, but it did so because in the preceding years the international financial system had been so closely integrated into a scheme of securitized financial operations that was essentially fragile principally because financial innovations and speculations had made the entire financial system highly risky.

The key to understanding the 2008 global crisis is to situate it historically and

to acknowledge that it was consequence of a major step backwards, particularly for the United States. Following independence, capitalist development in this country was highly successful, and since the early the twentieth century it has represented a kind of standard for other countries; the French regulation school calls the period beginning at that time the “Fordist regime of accumulation”. To the extent that concomitantly a professional class emerged situated between the capitalist class and the working class, that the professional executives of the great corporations gained autonomy in relation to stockholders, and that the public bureaucracy managing the state apparatus increased in size and influence, other analysts called it “organized” or “technobureaucratic capitalism”.¹ The economic system developed and became complex. Production moved from family firms to large and bureaucratic business organizations, giving rise to a new *professional class*. This model of capitalism faced the first major challenge when the 1929 stock-market crash turned into the 1930s Great Depression.

Yet World War II was instrumental in overcoming the depression, while governments responded to depression with a sophisticated system of financial regulation that was crowned by the 1944 Bretton Woods agreements. Thus, in the aftermath of World War II, the United States, emerged as the great winner and the new hegemonic power in the world; more than that, despite the new challenge represented by Soviet Union, it was a kind of lighthouse illuminating the world: an example of high standards of living, technological modernity and even of democracy. Thereafter the world experienced the “30 glorious years” or the golden age of capitalism. Whereas in the economic sphere the state intervened to induce growth, in the political sphere the *liberal state* changed into the *social state* or the *welfare state* as the guarantee of social rights became universal. Andrew Shonfield (1969, p. 61), whose book *Modern Capitalism* remains the classic analysis of this period, summarized it in three points: “First, economic growth has been much steadier than in the past... Secondly, the growth of production over the period has been extremely rapid... Thirdly, the benefits of the new prosperity were widely diffused.” The capitalist class remained dominant, but now, besides being constrained to share power and privilege with the emerging professional class, it was also forced to share its revenues with the working class and the clerical or lower professional class, now transformed into a large middle class. Yet the spread of guaranteed social rights occurred mainly in western and northern Europe, and in this region as well as in Japan growth rates picked up and per capita incomes converged to the level existing in the United States. Thus, whereas the United States remained hegemonic politically, it was losing ground to Japan and Europe in economic terms and to Europe in social terms.

In the 1970s this whole picture changed as we saw the transition from the 30 *glorious years of capitalism* (1948-1977) to *financialized capitalism* or finance-led

¹ Cf. John K. Galbraith (1967), Luiz Carlos Bresser-Pereira (1972), Claus Offe (1985), and Scott Lash and John Urry (1987).

capitalism – a mode of capitalism that was intrinsically unstable.² Whereas the golden age was characterized by regulated financial markets, financial stability, high rates of economic growth, and a reduction of inequality, the opposite happened in the neoliberal years: rates of growth fell, financial instability increased sharply and inequality increased, privileging mainly the richest two percent in each national society. Although the reduction in the growth and profits rates that took place in the 1970s in the United States as well as the experience of stagflation amounted to a much smaller crisis than the Great Depression or the present global financial crisis, these historical new facts were enough to cause the collapse of the Bretton Woods system and to trigger financialization and the neoliberal or neoconservative counterrevolution. It was no coincidence that the two developed countries that in the 1970s were showing the worst economic performance – United States and the United Kingdom – originated the new economic and political arrangement. In the United States, after the victory of Ronald Reagan in the 1980 presidential election, we saw the accession to power of a political coalition of rentiers and financiers sponsoring neoliberalism and practicing financialization, in place of the old professional-capitalist coalition of top business executives, the middle class and organized labor that characterized the Fordist period.³ Accordingly, in the 1970s neoclassical macroeconomics replaced Keynesian macroeconomics, and growth models replaced development economics⁴ as the “mainstream” teaching in the universities. Not only neoclassical economists like Milton Friedman and Robert Lucas, but economists of the Austrian School (Friedrich Hayek) and of Public Choice School (James Buchanan) gained influence, and, with the collaboration of journalists and other conservative public intellectuals, constructed the neoliberal ideology based on old laissez-faire ideas and on a mathematical economics that offered “scientific” legitimacy to the new credo.⁵ The explicit objective was to reduce indirect wages by “flexibilizing” laws protecting labor, either those representing direct costs for business enterprises or those involving the diminution of social benefits provided by the state. Neoliberalism aimed also to reduce the size of the state apparatus and to deregulate all markets, principally financial markets. Some of the

² Or the “30 glorious years of capitalism”, as this period is usually called in France. Stephen Marglin (1990) was probably the first social scientist to use the expression “golden age of capitalism”.

³ A classical moment for this coalition was the 1948 agreement between the United Auto Workers and the automotive corporations assuring wage increases in line with increases in productivity.

⁴ By “development economics” I mean the contribution of economists like Rosenstein-Rodan, Ragnar Nurkse, Gunnar Myrdal, Raul Prebisch, Hans Singer, Celso Furtado and Albert Hirschman. I call “developmentalism” the state-led development strategy that resulted from their economic and political analysis.

⁵ Neoclassical economics was able to abuse mathematics. Yet, although it is a substantive social science adopting a hypothetical-deductive method, it should not be confused with econometrics, which also uses mathematics extensively but, in so far as it is a methodological science, does so legitimately. Econometricists usually believe that they are neoclassical economists, but, in fact they are empirical economists pragmatically connecting economic and social variables (Bresser-Pereira, 2009).

arguments used to justify the new approach were the need to motivate hard work and to reward “the best”, the assertion of the viability of self-regulated markets and of efficient financial markets, the claim that there are only individuals, not society, the adoption of methodological individualism or of a hypothetic-deductive method in social sciences, and the denial of the conception of public interest that would make sense only if there were a society.

With neoliberal capitalism a new regime of accumulation emerged: *financialization* or finance-led capitalism. The “financial capitalism” foretold by Rudolf Hilferding (1910), in which banking and industrial capital would merge under the control of the former, did not materialize, but what did materialize was financial globalization – the liberalization of financial markets and a major increase in financial flows around the world – and finance-based capitalism or financialized capitalism. Its three central characteristics are, first, a huge increase in the total value of financial assets circulating around the world as a consequence of the multiplication of financial instruments facilitated by securitization and by derivatives; second, the decoupling of the real economy and the financial economy with the wild creation of fictitious financial wealth benefiting capitalist rentiers; and, third, a major increase in the profit rate of financial institutions and principally in their capacity to pay large bonuses to financial traders for their ability to increase capitalist rents.⁶ Another form of expressing the major change in financial markets that was associated with financialization is to say that credit ceased to principally be based on loans from banks to business enterprises in the context of the regular financial market, but was increasingly based on securities traded by *financial investors* (pension funds, hedge funds, mutual funds) in over-the-counter markets. The adoption of complex and obscure “financial innovations” combined with an enormous increase in credit in the form of securities led to what Henri Bourguinat and Eric Brys (2009, p. 45) have called “a general malfunction of the genome of finance” insofar as the packaging of financial innovations obscured and increased the risk involved in each innovation. Such packaging, combined with classical speculation, led the price of financial assets to increase, artificially bolstering financial wealth or fictitious capital, which increased at a much higher rate than production or real wealth. In this speculative process, banks played an active role, because, as Robert Guttman (2008, p. 11) underlies, “the phenomenal expansion of fictitious capital has thus been sustained by banks directing a lot of credit towards asset buyers to finance their speculative trading with a high degree of leverage and thus on a much enlarged scale”. Given the competition represented by institutional investors whose share of total credit did not stop growing, commercial banks decided to participate in the process and to use the *shadow bank system* that was being developed to “cleanse” their balance sheets of the risks

⁶ Gerald E. Epstein (2005, p. 3), who edited *Financialization and the World Economy*, defines financialization more broadly: “financialization means the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies.”

involved in new contracts: they did so by transferring to financial investors the risky financial innovations, the securitizations, the credit default swaps, and the special investment vehicles (Macedo Cintra and Farhi, 2008, p. 36). The incredible rapidity that characterized the calculation and the transactions of these complex contracts being traded worldwide was naturally made possible only by the information technology revolution supported by powerful computers and smart software. In other words, financialization was powered by technological progress.

Adam Smith's major contribution of economics was in distinguishing real wealth, based on production, from *fictitious wealth*. Marx, in Volume III of *Capital*, emphasized this distinction with his concept of "fictitious capital", which broadly corresponds to what I call the creation of fictitious wealth and associate with financialization: the artificial increase in the price of assets as a consequence of the increase in leverage. Marx referred to the increase in credit that, even in his time, made capital seem to duplicate or even triplicate.⁷ Now the multiplication is much bigger: if we take as a base the money supply in the United States in 2007 (US\$ 9.4 trillion), securitized debt was in that year four times bigger, and the sum of derivatives ten times bigger.⁸ The revolution represented by information technology was naturally instrumental in this change. It was instrumental not only in guaranteeing the speed of financial transactions but also in allowing complicated risk calculations that, although they proved unable to avoid the intrinsic uncertainty involved in future events, gave players the sensation or the illusion that their operations were prudent, almost risk-free.

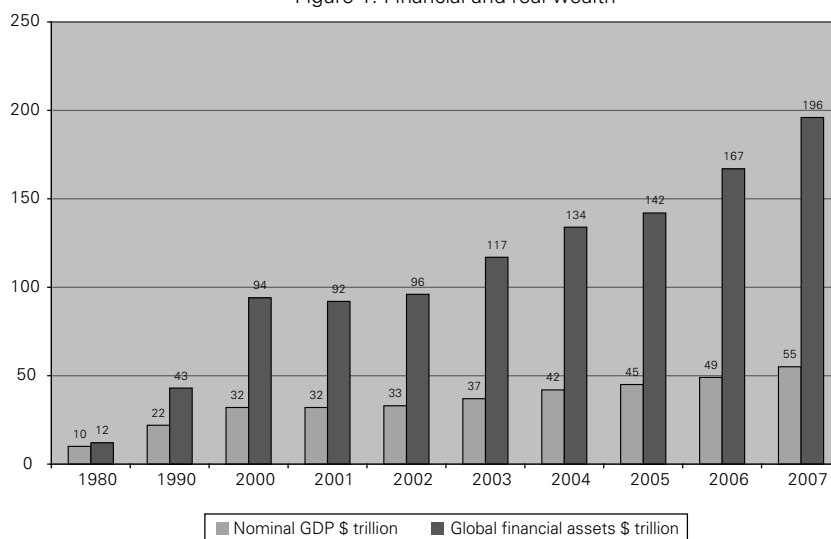
This change in the size and in the mode of operation of the financial system was closely related to the decline in the participation of commercial banks in financial operations and the reduction of their profit rates (Kregel, 1998). The commercial banks' financial and profit equilibrium was classically based on their ability to receive non-interest short-term deposits. Yet, after World War II, average interest rates started to increase in the United States as a consequence of the decision of the Federal Reserve to be more directly involved into monetary policy in order to keep inflation under control. The fact that the ability of monetary policy either to keep inflation under control or to stimulate the economy is limited did not stop the economic authorities giving it high priority (Aglietta and Rigot 2009). As this happened, the days of the traditional practice of non-interest deposits, which was central to banks' profitability and stability, were numbered, at the same time as the increase in over-the-counter financial operations reduced the share of the banks in total financing. Commercial banks' share of the total assets held by all financial institutions fell from around 50 percent in the 1950s to less than 30 percent in the

⁷ In Marx's words (1894, p. 601): "With the development of interest-bearing capital and credit system, all capital seems to be duplicated, and at some points triplicated, by various ways in which the same capital, or even the same claim, appears in various hands in different guises. The greater part of this 'money capital' is purely fictitious."

⁸ See David Roche and Bob McKee (2007, p. 17) In 2007 the sum of securitized debt was three times bigger than in 1990, and the total of derivatives six times bigger.

1990s. On the other hand, competition among commercial banks continued to intensify. The banks' response to these new challenges was to find other sources of gain, like services and risky treasury operations. Now, instead of lending non-interest deposits, they invested some of the interest-paying deposits that they were constrained to remunerate either in speculative and risky treasury operations or in the issue of still more risky financial innovations that replaced classical bank loans. This process took time, but in the late 1980s financial innovations – particularly derivatives and securitization – had become commercial banks' compensation for their loss of a large part of the financial business to financial investors operating in the over-the-counter market. Yet from this moment banks were engaged in a classical trade-off: more profit at the expense of higher risk. Not distinguishing *uncertainty*, which is not calculable, from *risk*, which is, banks, embracing the assumptions of neoclassical or efficient markets finance with mathematical algorithms, believed that they were able to calculate risk with a “high probability of being right”. In doing so they ignored Keynes's concept of *uncertainty* and his consequent critique of the precise calculation of future probabilities. Behavioral economists have definitively demonstrated with laboratory tests that economic agents fail to act rationally, as neoclassical economists suppose they do, but financial bubbles and crises are not just the outcome of this irrationality or of Keynes's “animal spirits”, as George Akerlof and Robert Shiller (2009) suggest. It is a basic fact that economic agents act in an economic and financial environment characterized by uncertainty – a phenomenon that is not only a consequence of irrational behavior, or of the lack the necessary information about the future that would allow them to act rationally, as conventional economics teaches and financial agents choose to believe; it is also a consequence of the impossibility of predicting the future.

Figure 1: Financial and real wealth

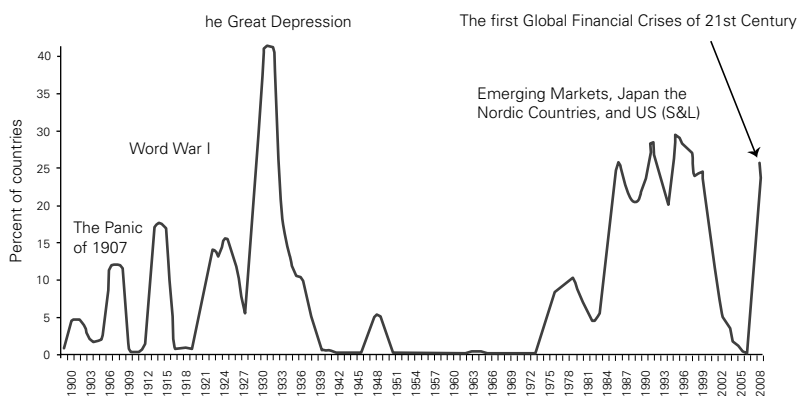


Source: McKinsey Global Institute.

While commercial banks were just trying awkwardly to protect their falling share of the market, the other financial institutions as well as the financial departments of business firms and individual investors were on the offensive. Whereas commercial banks and to a lesser extent investment banks were supposed to be capitalized – and so, especially the former, were typical capitalist firms – financial investors could be financed by rentiers and “invest” the corresponding money, that is, finance businesses and households liberated of capital requirements. Actually, for financial investors who are typically professional (not capitalist) business enterprises (as are consulting, auditing and law firms), capital and profit do not make much sense in so far as their objective is not to remunerate capital (which is very small) but the professionals, the financiers in this case, with bonuses and other forms of salary.

Through risky financial innovations, the financial system as a whole, made up of banks and financial investors, is able to create fictitious wealth and to capture an increased share of national income or of real wealth. As an UNCTAD report (2009, p. XII) signaled, “Too many agents were trying to squeeze double-digit returns from an economic system that grows only in the lower single-digit range”. Financial wealth gained autonomy from production. As Figure 1 shows, between 1980 and 2007 financial assets grew around four times more than real wealth – the growth of GDP. Thus, financialization is not just one of these ugly names invented by left-wing economists to characterize blurred realities. It is the process, legitimized by neoliberalism, through which the financial system, which is not just capitalist but also professional, creates artificial financial wealth. But more, it is also the process through which the rentiers associated with professionals in the finance industry gain control over a substantial part of the economic surplus that society produces – and income is concentrated in the richest one or two percent of the population.

Figure 2: Proportion of countries with a banking crisis, 1900-2008, weighted by share in world income



Sources: Reinhart and Rogoff (2008, p. 6). Notes: Sample size includes all 66 countries listed in Table A1 [of the source cited] that were independent states in the given year. Three sets of GDP weights are used, 1913 weights for the period 1800–1913, 1990 for the period 1914-1990, and finally 2003 weights for the period 1991-2006. The entries for 2007-2008 list crises in Austria, Belgium, Germany, Hungary, Japan, the Netherlands, Spain, the United Kingdom and the United States. The figure shows a three-year moving average.

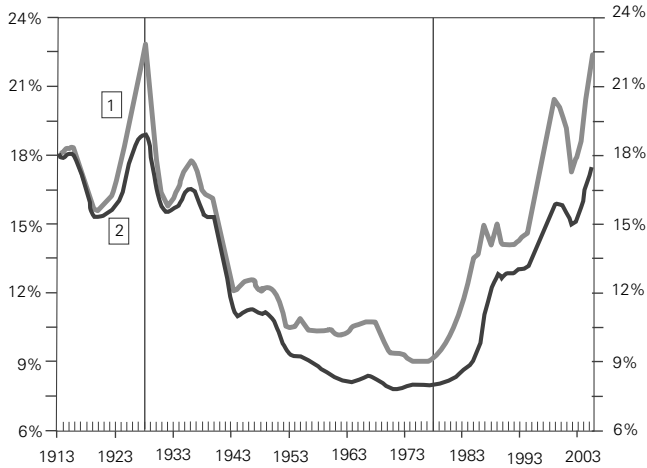
In the era of neoliberal dominance, neoliberal ideologues claimed that the Anglo-Saxon model was the only path to economic development. One of the more pathetic examples of such a claim was the assertion by a journalist that all countries were subject to a “golden jacket” – the Anglo-Saxon model of development. This was plainly false, as the fast-growing Asian countries demonstrated, but, under the influence of the US, many countries acted as if they were so subject. To measure the big economic failure of neoliberalism, to understand the harm that this global behavior caused, we just have to compare the thirty glorious years with the thirty neoliberal years. In terms of financial instability, although it is always problematic to define and measure financial crises, it is clear that their incidence and frequency greatly increased: according to Bordo et al. (2001), whereas in the period 1945-1971 the world experienced only 38 financial crises, from 1973 to 1997 it experienced 139 financial crises, or, in other words, in the second period there were between three and four times more crises than there were in the first period. According to a different criterion, Reinhart and Rogoff (2008, p. 6, Appendix) identified just one banking crisis from 1947 to 1975, and 31 from 1976 to 2008. Figure 2, presenting data from these same authors, shows the proportion of countries with a banking crisis, from 1900 to 2008, weighted by share in world income: the contrast between the stability in the Bretton Wood years and the instability after financial liberalization is striking. Based on these authors’ recent book (Rogoff and Reinhart, 2009, p. 74, Fig. 5.3), I calculated the percentage of years in which countries faced a banking crisis in these two periods of an equal number of years. The result confirms the absolute difference between the 30 glorious years and the financialized years: in the period 1949-1975, this sum of percentage points was 18; in the period 1976, 36! Associated with this, growth rates fell from 4.6 percent a year in the 30 glorious years (1947-1976) to 2.8 percent in the following 30 years. And to complete the picture, inequality, which, to the surprise of many, had decreased in the 30 glorious years, increased strongly in the post-Bretton Woods years.⁹

Boyer, Dehove and Plihon (2005, p. 23), after documenting the increase in financial instability since the 1970s and principally in the 1990s and 2000s, remarked that “this succession of national banking crises could be regarded as a unique global crisis originating in the developed countries and spreading out to developing countries, the recently financialized countries, and the transitional countries”. In other words, in the framework of neoliberalism and financialization, capitalism was experiencing more than just cyclical crises: it was experiencing a permanent crisis. The perverse character of the global economic system that neoliberalism and financialization produced becomes evident when we consider wages and leverage in the core of the system: the United States. A financial crisis is by definition a crisis caused by poorly allocated credit and increased leverage. The present crisis originated in mortgages that households failed to honor and in the fraud with subprimes. The stagnation of wages in the neoliberal years (which is explained not

⁹ I supply the relevant data below.

exclusively by neoliberalism, but also by the pressure on wages of imports using cheap labor and of immigration) implied an effective demand problem – a problem that was perversely “solved” by increasing household indebtedness. While wages remained stagnant, households’ indebtedness increased from 60 percent of GDP in 1990 to 98 percent in 2007.

Figure 3: Income share of the richest one percent in the United States, 1913-2006



Observation: Three-year moving averages (1) including realized capital gains; (2) excluding capital gains. Source: Gabriel Palma (2009, p. 836) based on Piketty and Sáez (2003). Income defined as annual gross income reported on tax returns excluding all government transfers and before individual income taxes and employees’ payroll taxes (but after employers’ payroll taxes and corporate income taxes).

The neoliberal years favored mainly a coalition of rentier capitalists and of high financial executives and young and bright financial traders – the financists – that developed financial innovations. Combining freely risky financial innovations with speculation this coalition was to multiply by three or four the revenues of rentiers’ (taking the interests paid by the US Treasury bonds as a base) and of financists benefited with generous performance bonus. The high remuneration obtained by rentiers and financists had as a trade-off the quasi-stagnation of the wages of workers and of the salaries of the rest of the professional middle class in the rich countries. It should, however, be emphasized that this outcome also reflected competition from immigration and exports originating in low-wage countries, which pushed down wages and middle-class salaries. Commercial globalization, which was supposed to be a source of increased wealth in rich countries, proved to be an opportunity for the middle-income countries that were able to neutralize the two demand-side tendencies that abort their growth: domestically, the tendency of wages to increase more slowly than the productivity rate due to the unlimited supply of labor, and the tendency of the exchange rate to overvaluation (Bresser-Pereira, 2010). The countries that were able to achieve that neutralization were engaged in

a national development strategy that I call “new developmentalism”, as is the cases of China and India. These countries shared with the rich in the developed countries (that were benefited by direct investments abroad or for the international delocalization process) the incremental economic surplus originating in the growth of their economies, whereas the workers and the middle class in the latter countries were excluded from it insofar as they were losing jobs.

AN “UNAVOIDABLE” CRISIS?

Financial crises happened in the past and will happen in the future, but an economic crisis as profound as the present one could have been avoided. If, after it broke, the governments of the rich countries had not suddenly woken up and adopted Keynesian policies of reducing interest rates, increasing liquidity drastically, and, principally, engaging in fiscal expansion, this crisis would have probably done more damage to the world economy than the Great Depression. Capitalism is unstable, and crises are intrinsic to it, but, given that a lot has been done to avoid a repetition of the 1929 crisis, it is not sufficient to rely on the cyclical character of financial crises or on the greedy character of financiers to explain such a severe crisis as the present one. We know that the struggle for easy and large capital gains in financial transactions and for correspondingly large bonuses for individual traders is stronger than the struggle for profits in services and in production. Finance people work with a very special kind of “commodity”, with a fictitious asset that depends on convention and confidence – money and financial assets or financial contracts – whereas other entrepreneurs deal with real products, real commodities and real services. The fact that financial people call their assets “products” and new types of financial contracts “innovations” does not change their nature. Money can be created and disappear with relative facility – which makes finance and speculation twin brothers. In speculation, financial agents are permanently subject to self-fulfilling prophecies or to the phenomenon that representatives of the Regulation School (Aglietta, 1995; Orléan, 1999) call *self-referential rationality* and George Soros (1998) *reflexivity*: they buy assets predicting that their price will rise, and prices really increase because their purchases push prices up. Then, as financial operations became increasingly complex, intermediary agents emerge between the individual investors and the banks or the exchanges – traders who do not face the same incentives as their principals: on the contrary, they are motivated by short-term gains that increase their bonuses, bonds or stocks. On the other hand, we know how finance becomes distorted and dangerous when it is not oriented to financing production and commerce, but to financing “treasury operations” – a nicer euphemism for speculation – on the part of business firms and principally commercial banks and the other financial institutions: speculation without credit has limited scope; financed or leveraged, it becomes risky and boundless – or almost, because when the indebtedness of financial investors and the leverage of financial institutions become too great, investors and banks suddenly realize that risk has become

insupportable, the herd effect prevails, as it did in October 2008: the loss of confidence that was creeping in during the preceding months turned into panic, and the crisis broke.

We have known all this for many years, principally since the Great Depression, which was a major source of social learning. In the 1930s Keynes and Kalecki developed new economic theories that better explained how to work economic systems, and rendered economic policymaking much more effective in stabilizing economic cycles, whereas sensible people alerted economists and politicians to the dangers of unfettered markets. On similar lines, John Kenneth Galbraith published his classical book on the Great Depression in 1954; and Charles Kindleberger published his in 1973. In 1989 the latter author published the first edition of his painstaking *Manias, Panics, and Crashes*. Based on such learning, governments built institutions, principally central banks, and developed competent regulatory systems, at national and international levels (Bretton Woods), to control credit and avoid or reduce the intensity and scope of financial crises. On the other hand, since the early 1970s Hyman Minsky (1972) had developed the fundamental Keynesian theory linking finance, uncertainty and crisis. Before Minsky the literature on economic cycles focused on the real or production side – on the inconsistency between demand and supply. Even Keynes did this. Thus, “when Minsky discusses economic stagnation and identifies financial fragility as the engine of the crisis, he transforms the financial question in the subject instead of the object of analysis” (Nascimento Arruda, 2008, p. 71). The increasing instability of the financial system is a consequence of a process of the increasing autonomy of credit and of financial instruments from the real side of the economy: from production and trade. In the paper “Financial instability revisited”, Minsky (1972) showed that not only economic crises but also financial crises are endogenous to the capitalist system. It was well-established that economic crisis or the economic cycle was endogenous; Minsky, however, showed that the major economic crises were always associated with financial crises that were also endogenous. In his view, “the essential difference between Keynesian and both classical and neoclassical economics is the importance attached to uncertainty” (p. 128). Given the existence of uncertainty, economic units are unable to maintain the equilibrium between their cash payment commitments and their normal sources of cash because these two variables operate in the future and the future is uncertain. Thus, “the intrinsically irrational fact of uncertainty is needed if financial instability is to be understood” (p. 120). Actually, as economic units tend to be optimistic in long term, and booms tend to become euphoric, the financial vulnerability of the economic system will tend necessarily increase. This will happen

when the tolerance of the financial system to shocks has been decreased by three phenomena that accumulate over a prolonged boom: (1) the growth of financial – balance sheet and portfolio – payments relative to income payments; (2) the decrease in the relative weight of outside and guaranteed assets in the totality of financial asset values; and (3) the

building into the financial structure of asset prices that reflect boom or euphoric expectations. The triggering device in financial instability may be the financial distress of a particular unit. (p. 150)

Thus, economists and financial regulators relied on the necessary theory and on the necessary organizational institutions to avoid a major crisis such as the one we are facing. A financial crisis with the dimensions of the global crisis that broke in 2007 and degenerated into panic in 2008 could have been avoided. Why wasn't it?

It is well known that the specific new historical fact that ended the 30 glorious years of capitalism was US President Nixon's 1971 decision to suspend the convertibility of the US dollar. At once the relation between money and real assets disappeared. Now money depends essentially on confidence or trust. Trust is the cement of every society, but when confidence loses a standard or a foundation, it becomes fragile and ephemeral. This began to happen in 1971. For that reason John Eatwell and Lance Taylor (2000, pp. 186-188) remarked that whereas "the development of the modern banking system is a fundamental reason for the success of market economies over the past two hundred years... the privatization of foreign exchange risk in the early 1970s increased the incidence of market risk enormously". In other words, the Bretton Woods fixed exchange rate was a foundation for economic stability that disappeared in 1971. Nevertheless, for some time after that, financial stability at the center of the capitalist system was reasonably assured – only in developing countries, principally in Latin America, did a major foreign debt crisis build up. After the mid-1980s, however, by which time neoliberal doctrine had become dominant, world financial instability broke out, triggered by the deregulation of national financial markets. Thus, over and above the floating of exchange rates, precisely when the loss of a nominal anchor (the fixed exchange rate system) required as a trade-off increased regulation of financial markets, the opposite happened: in the context of the newly dominant ideology – neoliberalism – financial liberalization emerged as a "natural" and desirable consequence of capitalist development and of neoclassical macroeconomic and financial models – and this event decisively undermined the foundations of world financial stability.

There is little doubt about the immediate causes of the crisis. They are essentially expressed in Minsky's model that, by no coincidence, was developed in the 1970s. They include, as the Group of Thirty's 2009 report underlined, poor credit appraisal, the wild use of leverage, little-understood financial innovations, a flawed system of credit rating, and highly aggressive compensation practices encouraging risk taking and short-term gains. Yet these direct causes did not emerge from thin air, nor can they be explained simply by natural greed. Most of them were the outcome of (1) the deliberate deregulation of financial markets and (2) the decision to not regulate financial innovations and treasury banking practices. Regulation existed but was dismantled. The global crisis was mainly the consequence of the floating of the dollar in the 1970s and, more directly, of the euphemistically named "regulatory reform" preached and enacted in the 1980s by neoliberal ideologues.

Thus, deregulation and the decision to not regulate innovations are the two major factors explaining the crisis.

This conclusion is easier to understand if we consider that competent financial regulation, plus the commitment to social values and social rights that emerged after the 1930s depression, were able to produce the 30 glorious years of capitalism between the late 1940s and the late 1970s. In the 1980s, however, financial markets were deregulated, at the same time that Keynesian theories were forgotten, neoliberal ideas became hegemonic, and neoclassical economics and public choice theories that justified deregulation became “mainstream”. In consequence, the financial instability that, since the suspension of the convertibility of the dollar in 1971, was threatening the international financial system was perversely restored. Deregulation and the attempts to eliminate the welfare state transformed the last thirty years into the “thirty black years of neoliberalism”.

Neoliberalism and financialization happened in the context of commercial and financial globalization. But whereas commercial globalization was a necessary development of capitalism, insofar as the diminution of the time and the cost of transport and communications support international trade and international production, financial globalization and financialization were neither natural nor necessary: they were essentially two perversions of capitalist development. François Chesnais (1994, p. 206) perceived this early on when he remarked that “the financial sphere represents the advanced spearhead of capital; that one where operations achieve the highest degree of mobility; that one where the gap between the operators’ priorities and the world need is more acute”. Globalization could have been limited to commerce, involving only trade liberalization; it did not need to include financial liberalization, which led developing countries, except the fast-growing Asian countries, to lose control of their exchange rates and to become victims of recurrent balance of payment crises.¹⁰ If financial opening had been limited, the capitalist system would have been more efficient and more stable. It is not by chance that the fast-growing Asian countries engaged actively in commercial globalization but severely limited financial liberalization.

Globalization was an inevitable consequence of technological change, but this does not mean that the capitalist system is not a “natural” form of economic and social system in so far as it can be systematically changed by human will as expressed in culture and institutions. The latter are not “necessary” institutions, they are not conditioned only by the level of economic and technological development, as neoliberal economic determinism believes and vulgar Marxism asserts. Institutions do not exist in a vacuum, nor are determined; they are dependent on values and political will, or politics. They are socially and culturally embedded, and are defined

¹⁰ I discuss the negative consequences of financial globalization on middle-income countries in Bresser-Pereira (2010). There is in developing countries a tendency toward the overvaluation of the exchange rate that must be neutralized if the countries are to grow fast and catch up. The overvaluation originates principally in the Dutch disease and the policy of growth with foreign savings.

or regulated by the state – a law and enforcement system that is not just a superstructure but an integral part of this social and economic system. They reflect in each society the division between the powerful and the powerless – the former, in the neoliberal years, associated in the winning coalition of capitalist rentiers or stockholders and “financists”, that is, the financial executives and the financial traders and consultants who gained power as capitalism become finance-led or characterized by financialization.

POLITICAL AND MORAL CRISIS

The causes of the crisis are also moral. The immediate cause of the crisis was the practical bankruptcy of US banks as a result of households default on mortgages that, in an increasingly deregulated financial market, were able to grow unchecked. Banks relied on “financial innovations” to repackage the relevant securities in such a manner that the new bundles looked to their acquirers safer than the original loans. When the fraud came to light and the banks failed, the confidence of consumers and businesspeople, which was already deeply shaken, finally collapsed, and they sought protection by avoiding all forms of consumption and investment; aggregate demand plunged vertically, and the turmoil, which was at first limited to the banking industry, became an economic crisis.

Thus, the fraud was part of the game. Confidence was lost not only for economic and political reasons. A moral issue does lurk at the root of the crisis. It is neither liberal, because the radical nature that liberalism professes ends up threatening freedom, nor conservative, because by professing radical “reform” it contradicts with the respect for tradition that characterizes conservatism. To understand this reactionary ideology it is necessary to distinguish it from liberalism – this word here understood in its classical sense rather than in the American one. It is not sufficient to say that neoliberalism is radical economic liberalism. It is more instructive to distinguish the two ideologies historically. While, in the eighteenth century, liberalism was the ideology of a bourgeois middle class pitted against an oligarchy of landlords and military officers and against an autocratic state, in the last quarter of the twentieth century neoliberalism emerged as the ideology of the rich against the poor and the workers, and against a democratic and social state. Neoliberalism or neo-conservatism (as neoliberalism is often understood in the United States) is characterized by a fierce and immoral individualism. Whereas classical conservatives, liberals, progressives and socialists diverge principally on the priority they give respectively to social order, freedom or social justice, they may all be called “republicans”, that is, they may harbor a belief in the public interest or the common good and uphold the need for civic virtues. In contrast to that, neoliberal ideologues, invoking “scientific” neoclassical economics and public choice theory, deny the notion of public interest, turn the invisible hand into a caricature, and encourage people to fight for their individual interests on the assumption that collective interests will be ensured by the market.

Thus, the loss of confidence behind the crisis does not reflect solely economic factors. There is a moral issue involved. In addition to deregulating markets, the neoliberal hegemony was instrumental in eroding society's moral standards. Virtue and civic values were forgotten, or even ridiculed, in the name of the invisible hand or of an overarching market economy rationale that claimed to find its legitimacy in neoclassical mathematical economic models. Meanwhile businesspeople and principally finance executives became the new heroes of capitalist competition. Corporate scandals multiplied. Fraud became a regular practice in financial markets. Bonuses became a form of legitimizing huge performance incentives. Bribery of civil servants and politicians became a generalized practice, thereby "confirming" the market fundamentalist thesis that public officials are intrinsically self-oriented and corrupt. Instead of regarding the state as the principal instrument for collective social action, as the expression of the institutional rationality that each society is able to attain according to its particular stage of development, neoliberalism saw it simply as an organization of politicians and civil servants, and assumed that these officials were merely corrupt, making trade-offs between rent-seeking and the desire to be re-elected or promoted. With such political reductionism, neoliberalism aimed to demoralize the state. The consequence is that it also demoralized the legal system, and, more broadly, the value or moral system that regulates society. It is no accident that John Kenneth Galbraith's final book was named *The Economics of Innocent Fraud* (2004).

Neoliberalism and neoclassical economics are twins. A practical confirmation of their ingrained immorality is present in the two surveys undertaken by Robert Frank, Thomas Gilovich, and Dennis Regan (1993, 1996), and published in the *Journal of Economic Perspectives*, one of the journals of the American Economic Association. To appraise the moral standards of economists in comparison with those of other social scientists, they asked in 1993 whether "studying economics inhibits cooperation", and in 1996 whether "economists make bad citizens". In both cases they came to a dismal conclusion: the ethical standards of Ph.D. candidates in economics are clearly and significantly worse than the standards of the other students. This is no accident, nor can it may be explained away by dismissing the two surveys as "unscientific". They reflect the vicious brotherhood between neoliberalism and the neoclassical economics taught in graduate courses in the United States.¹¹

NEOLIBERAL HEGEMONY

Thus, this global crisis was neither necessary nor unavoidable. It happened because neoliberal ideas became dominant, because neoclassical theory legitimized

¹¹ Note that at undergraduate level the situation is not so bad because teachers and textbooks limit themselves to what I call "general economic theory". Mathematical or hypothetical-deductive economics is not part of the regular curriculum.

its main tenets, and because deregulation was undertaken recklessly while financial innovations (principally securitization and derivative schemes) and new banking practices (principally commercial banking, also becoming speculative) remained unregulated. This action, coupled with this omission, made financial operations opaque and highly risky, and opened the way for pervasive fraud. How was this possible? How could we experience such retrogression? We saw that after World War II rich countries were able to build up a mode of capitalism – democratic and social or welfare capitalism – that was relatively stable, efficient, and consistent with the gradual reduction of inequality. So why did the world regress into neoliberalism and financial instability?

There are two immediate and rather irrational causes of the neoliberal dominance or hegemony since the 1980s: the fear of socialism and the transformation of neoclassical economics into mainstream economics. First, a few words on the fear of socialism. Ideologies are systems of political ideas that promote the interests of particular social classes at particular moments. While economic liberalism is and will be always necessary to capitalism because it justifies private enterprise, neoliberalism is not. It could make sense to Friedrich Hayek and his followers because in their time socialism was a plausible alternative that threatened capitalism. Yet, after Budapest 1956, or Prague 1968, it became clear to all that the competition was not between capitalism and socialism, but between capitalism and statism or the technobureaucratic organization of society. And after Berlin 1989, it also became clear that statism had no possibility of competing in economic terms with capitalism. Statism was effective in promoting primitive accumulation and industrialization; but as the economic system became complex, economic planning proved to be unable to allocate resources and promote innovation. In advanced economies, only regulated markets are able to efficiently do the job. Thus, neoliberalism was an ideology out of time. It intended to attack statism, which was already overcome and defeated, and socialism, which, although strong and alive as an ideology – the ideology of social justice – in the medium term does not present the possibility of being transformed into a practical form of organizing economy and society.

Second, we should not be complacent about neoclassical macroeconomics and neoclassical financial economics in relation to this crisis.¹² Using an inadequate method (the hypothetical-deductive method, which is appropriate to methodological sciences) to promote the advancement of a substantive science such as economics (which requires an empirical or historical-deductive method), neoclassical macroeconomists and neoclassical financial economists built models that have no correspondence to reality, but are useful to justify neoliberalism “scientifically”. The method allows them to use mathematics recklessly, and such use supports their

¹² Note that I am exempting Marshallian microeconomics from this critique, because I view microeconomics (completed by game theory) as a methodological science – economic decision theory – that requires a hypothetical-deductive method to be developed. Lionel Robbins (1932) was wrong to define economics as “the science of choice” because economics is the science that seeks to explain economic systems, but he intuitively perceived the nature of Alfred Marshall’s great contribution.

claim that their models are scientific. Although they are dealing with a substantive science, which has a clear object to analyze, they evaluate the scientific character of an economic theory not by reference to its relation to reality, or to its capacity to explain economic systems, but to its mathematical consistency, that is, to the criterion of the methodological sciences (Bresser-Pereira, 2009). They do not understand why Keynesians as well as classical and old institutionalist economists use mathematics sparingly because their models are deduced from the observation of how economic systems do work and from the identification of regularities and tendencies. The hypothetical-deductive neoclassical models are mathematical castles in the air that have no practical use, except to justify self-regulated and efficient markets, or, in other words, to play the role of a meta-ideology. These models tend to be radically unrealistic as they assume, for instance, that insolvencies cannot occur, or that money does not need to be considered, or that financial intermediaries play no role in the model, or that price of a financial asset reflects all available information that is relevant to its value, etc., etc. Writing on the state of economics after the crisis, *The Economist* (2009, p. 69) remarked that “economists can become seduced by their models, fooling themselves that what the model leaves out does not matter”. While neoclassical financial theory led to enormous financial mistakes, neoclassical macroeconomics is just useless. The realization of this fact – of the uselessness of neoclassical macroeconomic models – led Gregory Mankiw (2007) to write, after two years as President of the Council of Economic Advisers of the American Presidency, that, to his surprise, nobody used in Washington the ideas that he and his colleagues taught in graduate courses; what policymakers used was “a kind of engineering” – a sum of practical observations and rules inspired by John Maynard Keynes... I consider this paper the formal confession of the failure of neoclassical macroeconomics. Paul Krugman (2009, p. 68) went straight to the point: “most macroeconomics of the past 30 years was spectacularly useless at best, and positively harmful at worst.”

Neoliberal hegemony in the United States did not just cause increased financial instability, lower rates of growth and increased economic inequality. It also implied a generalized process of eroding the social trust that is probably the most decisive trait of a sound and cohesive society. When a society loses confidence in its institutions and in the main one, the state, or in government (here understood as the legal system and the apparatus that guarantees it), this is a symptom of social and political malaise. This is one of the more important findings by American sociologists since the 1990s. According to Robert Putnam and Susan Pharr (2000, p. 8), developed societies are less satisfied with the performance of their representative political institutions than they were in the 1960s: “The onset and depth of this disillusionment vary from country to country, but the downtrend is longest and clearest in the United States where polling has produced the most abundant and systematic evidence.” This lack of trust is a direct consequence of the new hegemony of a radically individualist ideology, as is neoliberalism. To argue against the state many neoliberals resorted to a misguided “new institutionalism”, but the institutions that coordinate modern societies are intrinsically contradictory to neoliberal

views in so far as this ideology aims to reduce the coordinating role of the state, and the state is the main institution in a society. For sure, a neoliberal will be tempted to argue that, conversely, it was the malfunctioning of political institutions that caused neoliberalism. But there is no evidence to support this view; instead, what the surveys indicate is that confidence falls dramatically after the neoliberal ideological hegemony has become established and not before.

THE IMMEDIATE CONSEQUENCES

In the moment that the crisis broke, politicians, who had been taken in by the neoclassical illusion of the self-regulated character of markets, realized their mistake and decided four things: first, to radically increase liquidity by reducing the basic interest rate (and by all other possible means), since the crisis implied a major credit crunch following the general loss of confidence caused by the crisis; second, to rescue and recapitalize the major banks, because they are quasi-public institutions that cannot go bankrupt; third, to adopt major expansionary fiscal policies that became inevitable when the interest rate reached the liquidity trap zone; and, fourth, to re-regulate the financial system, domestically and internationally. These four responses were in the right direction. They showed that politicians and policymakers soon relearned what was “forgotten”. They realized that modern capitalism does not require deregulation but regulation; that regulation does not hamper but enable market coordination of the economy; that the more complex a national economy is, the more regulated it must be if we want to benefit from the advantages of market resource allocation or coordination; that economic policy is supposed to stimulate investment and keep the economy stable, not to conform to ideological tenets; and that the financial system is supposed to finance productive investments, not to feed speculation. Thus, their reaction to the crisis was strong and decisive. As expected, it was immediate in expanding the money supply, relatively short-term in fiscal policy, and medium-term in regulation, which is still (in September 2009) being designed and implemented. For sure, mistakes have been made. The most famous was the decision to allow a great bank like Lehman Brothers to go bankrupt. The October 2008 panic stemmed directly from this decision. It should be noted also that the Europeans reacted too conservatively in monetary and in fiscal terms in comparison with the United States and China – probably because each individual country does not have a central bank. As a trade-off, Europeans seem more engaged in re-regulating their financial systems than are the United States or Britain.

In relation to the need for international or global financial regulation, however, it seems that learning about this need has been insufficient, or that, despite the progress that the coordination of the economic actions of the G-20 group of major countries represented, the international capacity for economic coordination remains weak. Almost all the actions undertaken so far have responded to one kind of financial crisis – the banking crisis and its economic consequences – and not to

the other major kind of financial crisis, namely, the foreign exchange or balance of payments crisis. Rich countries are usually exempt from this second type of crisis because they usually do not take foreign loans but make them, and, when they do take loans it is in their own currency. For developing countries, however, balance of payments crises are a *financial scourge*. The policy of growth with foreign savings that rich countries recommend to them does not promote their growth; on the contrary, it involves a high rate of substitution of foreign for domestic savings, and causes recurrent balance of payments crises (Bresser-Pereira, 2010).

This crisis will not end soon. Governments' response to the crisis in monetary and fiscal terms was so decisive that the crisis will not be transformed into a depression, but it will take time to be solved, for one basic reason: financial crises always develop out of high indebtedness or leverage and the ensuing loss of confidence on the part of creditors. After some time the confidence of creditors may return, but as Richard Koo (2008) observed, studying the Japanese depression of the 1990s, "debtors will not feel comfortable with their debt ratios and will continue to save". Or, as Michel Aglietta (2008, p. 8) observed: "the crisis follows always a long and painful path; in fact, it is necessary to reduce everything that increased excessively: value, the elements of wealth, the balance sheet of economic agents." Thus, despite the bold fiscal policies adopted by governments, aggregate demand will probably remain feeble for some years.

Although this crisis is hitting some middle-income countries like Russia and Mexico hard, it is essentially a rich countries' crisis. Middle-income countries like China and Brazil are already recovering. But although rich countries are already showing some signs of recovery, their prospects are not good. Recovery was mainly a consequence of financial policy, not of private investments – and we know that continued fiscal expansion faces limits and poses dangers. Rich countries long taught developing countries that they should develop with foreign savings. The financial crises in middle-income countries in the 1990s, beginning with Mexico in 1994, passing through four Asian countries, and ending with the 2001 major Argentinean crisis, were essentially the consequence of the acceptance of this recommendation.¹³ While Asian and Latin-American governments learned from the crises, the Eastern Europeans did not, and are now being severely hit.

Nevertheless, the United States' foreign indebtedness was in its own money, we cannot expect that it will continue to incur debts after this crisis. The dollar showed its strength, but such confidence cannot be indefinitely abused. Thus, the rest of the world will have to find sources of additional aggregate demand. China, whose reaction to the crisis was strong and surprisingly successful, is already seeking this alternative source in its domestic market. In this it will certainly be followed

¹³ For the critique of growth with foreign savings or current account deficits, see Bresser-Pereira and Nakano (2003) and Bresser-Pereira and Gala (2007); for the argument that this mistaken economic policy was principally responsible for the financial crises of the 1990s in the middle-income countries, see Bresser-Pereira, Gonzales and Lucinda (2008).

by many countries, but meanwhile we will have an aggravated problem of insufficient demand.

Finally, this crisis showed that each nation's real institution "of last resource" is its own state; it was with the state that each national society counted to face the crisis. Yet the bold fiscal policies adopted almost everywhere led the state organizations to become highly indebted. It will take time to restore sound public debt ratios. Meanwhile, present and future generations will necessarily pay higher taxes.

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