## GREAT DEPRESSION, 2008 GREAT CONTRACTION, AND WORLD HISTORY

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Several financial indicators display a secular U-shape curve with peaks in 1929 and 2008. To the contrary, the period of 'financial repression' inaugurated by the New Deal regulation is marked until 1970 by the absence of banking and currency crises. The main hypothesis of the article is that the 2008 crisis is the consequence of an autonomous process of financial globalization which begins in the 1960s with the expansion of the so-called Eurodollars and goes on over the 1970s with the market of petrodollars. The deregulation increasingly practiced by Western governments since 1973 is an effect rather than a cause of the cross-border flows of capital.

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World History and history of finance are naturally connected. Compared with other drivers of globalization – e.g., international flows of commodities and manufactures, and human migrations – since ancient times capital was easier to manage and trade by cross-border exchanges of national currencies. Accordingly, money's peculiar volatility provoked recurring crises. Carmen Reinhart and Ken Rogoff (2009) offered a worldwide analysis of financial crises over the last two centuries which pointed to the correlation among international capital mobility, housing price cycle, banking crisis and government debt. What they call the 'Second Great Contraction' began in 2007 and was second only to the first Great Depression in the 1930s as by far the most traumatic event in the course of the twentieth century. Reinhart and Rogoff do not accept the idea (commonly ascribed to the heterodox economist Hyman Minsky) of an inherent weakness in

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the financial system provoked by cycles of speculative euphoria followed by distress and rush for liquidity. Indeed, their emphasis is on a 'this time is different' syndrome, particularly widespread in the emerging markets by an enduring confidence in public and private debt as a tool to solve the excesses of risk and leverage (i.e., the ratio of assets to liabilities).

Actually, the percentage of national economies in a financial crisis exhibits a secular U-shaped curve, with peaks in 1929 and 2006. The Great Depression and the Great

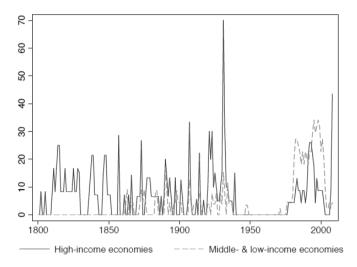


Fig. 1. Percentage of economies in a financial crisis, 1800 to 2000. Source: Alan M. Taylor, 'The Great Leveraging', in Viral V. Acharya et al., eds., *The Social Value of the Financial Sector: Too Big to Fail or Just Too Big?*, Hackensack NJ: World Scientific Publishing 2014, Figure 1 p.35.

Contraction had an apparent impact on world history involving both advanced and developing economies. However, the absence of crises over the period 1945-1973 demonstrates that a globally regulated finance was possible, and it was achieved by the New Deal legislation.

Further financial indicators show the same trend over the long run. The total value of the US financial assets (equities, private and government debt securities, deposits) peaked at 167 percent of GDP in 1929 (compared to 101 percent in 1900) but it was 194 percent in 1980, and 442 percent in 2007. Accordingly, wages in the US financial sector (relative to non-farm private wages) showed the same historical peaks in 1929 and 2006 (Roxburgh *et al.* 2009, Exhibit 1: 8; Philippon and Reshef 2012). Worldwide, a sample of industrial and developing countries documented the same secular U-shaped pattern for four basic variables of financial development (deposits to GDP,

stock market capitalization to GDP, number of listed firms to population, equity issues to gross fixed capital formation) (Rajan and Zingales 2003).

International capital mobility (including portfolio equity flows, foreign direct investment, bank finance, public and private bond issues), which had risen during the second half of the nineteenth century, also hit a trough in the interwar period and peaked in 1914 and 2000. Foreign capital stocks declined from their pre-1914 peak (approximately 20 percent of world GDP) to 8 percent of world GDP in 1930 and 5 percent in 1945. They reached the pre-1914 level by 1980 and climbed dramatically to 92 percent in 2000. Over the period 1970-2002 gross external assets (i.e., financial claims of citizens on foreigners) grew seven-fold as a percentage of World GDP (Obstfeld and Taylor 2004: 52-53; Rajan 2005: 322). Contrary to what O'Rourke and Williamson maintained in 1999 (O'Rourke and Williamson 1999: 209), the outward stock of foreign direct investment in 2007 largely exceeded the levels in 1910 and 1930, following an explosion in bilateral investment treaties that started in the early 1990s (Twomey 2000: tables 3.4 and 3.11; United Nations 2008: Annex table B.3).

Before 1914 the net creditor position of the core industrial countries accounted for more than half, while in 2005 the global stock of liabilities was more than equivalent to the world GDP, and the sum of net creditor positions was less than one-tenth. The accelerated expansion of capital movements supported the international circulation of financial risks rather than efficient transfers of savings (Brender and Pisani 2010: 44). Thus, the dynamics of finance over the long run showed a structural transformation which exceeded the scale of both boom and bust cycles and poor regulation by national financial institutions. Increasing financial intensity over the past 30 years has been driven by an increase in the scale and complexity of intra-financial system claims, that is, claims between financial institutions rather than between them and the real economy. The capital markets have increasingly performed the intermediation functions of the banking system. In January 2008 there were 12 triple A-rated (the best assessment provided by rating agencies) companies in the world, but 64,000 structured finance instruments rated triple A (Blankfein 2009).

Worldwide, in a sample of 79 countries the global value of financial assets increased from 120 percent to world GDP in 1980 to 260 percent in 1990, and 370 percent in 2007 (Roxburgh *et al.* 2011, Exhibit 1: 2; Greenwood and Scharfstein 2013; Philippon and Reshef 2013). A different sample of 14 advanced economies over the years 1870-2008 demonstrates that the Great Depression was followed by a period of financial repression while 1945 inaugurated a new financial age, when credit (supported by activist national macroeconomic policies within the Bretton Woods system of fixed exchange rates) decoupled from broad money and combined increased leverage with

augmented funding via the nonmonetary liabilities of banks. But after 1971 the Bretton Woods system was abandoned; the liquidity hoards provided by the post-war recovery evaporated; loans and bank assets reached unprecedented levels; and the frequency of financial crises (particularly twin crises in both banking and currency sectors) increased fourfold, despite the growing importance of institutional investors such as mutual and pension funds. After 1980 the elasticity (i.e., the proportional change) of financial output with respect to income rapidly reached a level that was more than double the previous average in every period (Schularick and Taylor 2012).

The market of derivatives and securities played a leading role in this expansion of global finance, and it was strictly connected with automated order-generating engines and electronic trading platforms. Information and communication technologies, in fact, made an important difference with respect to the Great Depression. They were neither mere external opportunities for financial investment (as in the case of the 2000 dot.com bubble and cars and radios in the 1920s) nor mere tools which reduce information asymmetries (as in the case of the inventions of the telegraph and telephone), but also internal drivers of change. Thanks to computers and algorithms, high-frequency trading (which is estimated to account for 40 to 60 percent of all trading activity across the universe of financial markets) looks at patterns of prices, volumes, and past trading activity, rather than evaluations of firm fundamentals. Hence, algorithmic trading can become a significant source of incidents and instability. In turn, the development of mathematical models designed to achieve a theoretically risk-free portfolio of financial assets and options (in the wake of the theory of options pricing elaborated by Black and Scholes, Nobel laureates in 1997) encouraged investors to use more leverage, as well as the financial industry to supply them with an increasing array of derivative securities (Kirilenko and Lo 2013. Humans are pushed to the periphery of a much faster, larger, and more complex financial environment.

The global scale of financial development exceeds the nation-state dimension. Eurodollars in the 1960s and petrodollars in the 1970s were the main drivers of a structural transformation from a state-based international monetary system to a market-based one, whereby the traditional and stable concept of a portfolio of liquid assets (reserves, government securities) was integrated by a new concept of liquidity based on issuing new liabilities to raise cash in financial markets especially through interbank trading. Liberalized capital movements provoked a dramatic increase of international financial flows from 1 percent of world GDP in 1970 to 8 percent in 2000 and to nearly 20 percent in 2007. Loans were easily provided to developing countries but, when interest rates rose in 1979, an unprecedented frequency of financial crises occurred, as displayed in Figure 1.

In 1929 the fracturing of the gold standard system had a disruptive effect on international trade, whose volume shrank by 25 percent between 1929 and 1932 (Cassis 2006: 182). The globalization backlash of the advanced economies produced a fall in demand and a worldwide collapse of commodity prices which affected the colonial economies in Asia and Africa, increasing their indebtedness and consequently inducing the colonial powers to pursue deflationary policies. The burden of the Great Depression was shifted to the rural poor, paving the way for the decolonization movements of the post-1945 period. By contrast, import substitution policies were adopted by many Latin American nationalist governments (Argentina and Uruguay were the first countries to abandon gold standard in 1929) and the recovery was significantly faster than in Western Europe Rothermund 1996; Drinot and Knight 2014).

In 2008 world trade was shocked by a fall even faster than the Great Depression (-20 percent between 2008 and 2009). Moreover, the crisis reversed a thirty-year massive expansion in global exports, whose value at constant prices multiplied six times from 1972 onwards, largely thanks to the rise of China and other Asian countries. Unlike the interwar period, the emerging economies were no longer confined to the agricultural sector (their export of manufactures increased from about nil in 1929 to a quarter of the world total in 2000) nor constrained by protectionist barriers, which explain only 2 percent of the collapse in trade, as compared to estimates of 20-40 percent in the Great Depression (Baldwin 2009; Federico and Tena Junguito 2016; Kee et al. 2013; Grossman and Meissner 2010: 333-334). This time, the emerging economies experienced only a minor slowdown, relative to the stagnation and much slower growth of the West. The index of GDP (1993=100) in advanced economies was 201 in 2007, 199 in 2009, and 222 in 2012; in emerging economies respectively 279, 312, and 390. By comparison, during the Great Depression the same index (1921=100) in advanced economies (US and 12 Western European countries) was 143 in 1929, 116 in 1932, and 124 in 1934; in developing economies (8 Latin American countries and 6 Asian countries) it was respectively 135, 123, and 135 (IMF; Maddison 2001). Post-crisis recovery was much more uncertain in the 1930s along with a constrained and dependent position of non-Western countries. In the OECD countries, the harmonized unemployment rate peaked at 8.3 percent in 2010, compared to an unweighted average rate of 21.6 percent in 1932.1

The economic growth of the 1920s spread on a wave of liquidity favoured by the 1922 Genoa Conference, which allowed the central banks to

<sup>&</sup>lt;sup>1</sup> Unemployment data from www.oecd.stat and MITCHELL 2003-2007. Higher data for 1932 but only referring to the industrial sector from Eichengreen and Hatton 1988, table 1.

hold foreign currency (in addition to gold) to cover their respective national currencies. But financial development in the 1920s was much more constrained than the 'flood' of Eurodollars and petrodollars after 1960. Sterling and the dollar shared reserve-currency status and international capital flows followed a boom and bust cycle, at first surging in connection with World War I financial debts and needs for reconstruction, and then stopping in 1928 (US capital exports dropped from 530 million to 120 million) as credit conditions tightened in New York (Ruggie 1982, 390; Eichengreen and Flandreau 2009). Reduced foreign lending contributed to the downturn in some economies (Germany, Argentina, Brazil) even before the US Great Depression. The share of foreign exchange in global monetary reserves fell from 37 percent in 1928 to a mere 11 percent in 1931. France played a major role, first by amassing reserves in sterling and dollars, and then by converting them into gold. France's sales forced the UK to suspend convertibility in 1931, and many of the other countries confronted the instability by exchanging dollars for gold. Increasing outflows of gold from the US pushed the Federal Reserve to raise the discount rate in 1931 with deflationary effects (Accominotti and Eichengreen 2016; Irwin 2010).

On the eve of 2008 crisis, international capital flows were tilted in the other direction, toward the US. In Federal Reserve Governor Bernanke's view, China (that after 2002 replaced Japan as the main US trading partner) was the originator of a 'global savings glut' which favoured rampant financialization and borrowing in the United States (Bernanke 2005). According to quantitative model-based exercises, between one-quarter and one-third of the increase in US household debt, which doubled in 2000-2007, can be explained by foreign asset accumulation. Over the same period foreign holdings of US mortgage securities rose from 500 billion to 1.5 trillion of dollars, equal to roughly one tenth of the outstanding US mortgage debt (Justiniano *et al.* 2014).

There was a clear interaction between the global financial imbalances and the accumulation of risk, but in fact foreign financial investment in US mortgage securities amounted in 2007 to one tenth of the total and it contributed to the crisis to an extent that could hardly be considered as decisive. In 2007 the large majority of the foreign holdings of US asset backed securities included European banks (49 percent) and offshore financial centres in the Caribbean and Channel Islands (36 percent). Other offshore centres like Hong Kong and Singapore accounted for a further 3.5 percent, and China held only 1.5 percent, largely preferring safer investment in US Treasury securities. In 2015 both China and Japan owned about 7 percent of the US gross national debt, respectively. Because China and other Asian countries for the most part restricted their US purchases in such a way, they pushed down yields on safe assets and indirectly increased the appetite for

alternative and riskier investments on the part of other investors. Over the period 1998-2007 credit growth in the US averaged around 14 percent of GDP each year – almost five times as big as the extra 3 percent of GDP flowing in from overseas (Kamin and DeMarco 2012: figure 3; Jagannathan et al. 2013). The accumulation of foreign exchange reserves accompanied increasing levels of savings flows from the developing to the developed regions of the world, which were absent in the Great Depression period and even in the late nineteenth century when the net flow of capital was from the United Kingdom. Thus, the global savings glut set in motion by East Asian economies after the 1997 crisis was a minor driver of the financial bubble. It was dependent on the greed of Western investors and managers who, beginning in the 1970s, favoured a global financial development to achieve short-run profits and avoid constraining national regulations.

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