This project has received funding from the European Union's Seventh Framework Programme
for research, technological development and demonstration under grant agreement no 266800

FESSUD

FINANCIALISATION, ECONOMY, SOCIETY AND SUSTAINABLE DEVELOPMENT

Working Paper Series

No 48

Financialisation and Sustainability: a Long-run Perspective

Alessandro Vercelli

ISSN 2052-8035

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 266800

Financialisation and Sustainability: a Long-run Perspective

Alessandro Vercelli

Affiliation: University of Siena and SOAS (University of London).

Abstract:

This paper argues that there is a secular tendency towards financialisation that is intrinsic in the development of market relations. The driving force of this evolutionary process is rooted in a progressive but discontinuous flow of financial innovations meant to remove the existing constraints to the flexibility of economic transactions. According to received wisdom, the adoption of money as medium of exchange has removed the strictures of double coincidence of wants, while the modern forms of credit have been developed to relax the cash-in-advance constraint to economic transactions. As these examples suggest, financial innovations aim to extend the set of exchange options in time, space and contents for the decision makers who introduce them. Financial innovations are adopted because, ceteris paribus, a larger option set is positively correlated with higher expected returns and pay-off opportunities. Their systemic effects, however, may have negative implications such as financial instability, underinvestment in the real sector, unemployment, stagnation. When the negative consequences accumulate beyond a tolerable threshold, the remedy has been sought in stricter rules of self-regulation, or rather of regulation by law, or even in severe measures of financial repression. The fact that this did not happen so far after the recent deep crisis has further enhanced the unsustainability of the current process of financialisation.

Key words: Financialisation, globalisation, sustainability

Date of publication as FESSUD Working Paper: July, 2014

Journal of Economic Literature classification: B10, B20, E50, N20, O16, Q56

Contact details: Alessandro Vercelli, Department of Economics and Statistics, University of Siena, email: vercelli@unisi.it

Acknowledgments:

Earlier drafts of the paper have been presented in Fessud meetings and in the Conference on 'Finance and the Macroeconomics of Environmental Policies' arranged by the Cambridge Trust for New Thinking in Economics on the 10 April 2014 at St Catharine's College, Cambridge, United Kingdom. I thank all the participants for the stimulating comments and suggestions.

The research leading to these results has received funding from the European Union Seventh Framework Programme (FP7/2007-2013) under grant agreement n° 266800.

Website: www.fessud.eu

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 266800

1. Introduction

Financialisation is a neologism that started to be used systematically in the early 1990s. The current usage of the term owes much to the work of Kevin Phillips "who devoted a key chapter of his Arrogant Capital to the 'Financialization of America', defining financialisation as 'a prolonged split between the divergent real and financial economies' … in the same year Giovanni Arrighi used the concept in an analysis of international hegemonic transition" (see Bellamy Foster, 2008: n.3). The word and the underlying concept started to be adopted widely in the following years but almost exclusively by heterodox economists who, differently from the orthodox ones, see financialisation as a serious problem to be understood and overcome or at least mitigated. Notwithstanding its fortune gathered momentum with the growing strength of the process, the concept of financialisation is still particularly controversial as it has been defined in different ways that often look mutually inconsistent.

As in the case of globalisation, industrialisation, and many other words terminating with the suffix "–isation", the word designates a process characterised by an increasing weight and importance of the thing or quality preceding the suffix, in our case finance or more in general the financial side of economic decisions.[1] A portmanteau definition of this kind has the advantage of being broad enough to compare various episodes of financialisation occurring in different times and places, but has the disadvantage of being too generic for a thorough causal analysis of specific episodes of financialisation. In the first part of this paper, I adopt a broad descriptive definition to clarify the outlines of a suggested evolutionary approach that is based on long-run analogies. In the second part I will hint at some of the specificities that characterise the most recent episodes of financialisation and at some of their broad policy implications from the point of view of sustainability.

The first and main concern of the recent debate over financialisation is the process started in the 1970s and often referred to as "neoliberal financialisation" (or "Second financialisation" since the industrial revolution). I maintain that this process cannot be understood without viewing it in a long-run perspective. To this end there are three main paradigmatic options: either a specific process of financialisation is seen as a "unique" historical episode, or as a recurring phenomenon, or as a stage of a long-run process (or tendency). In my opinion, the three options do not exclude each other: my own suggested vision combines the three approaches within a comprehensive evolutionary paradigm.

The structure of the paper is as follows. In section 2, I discuss whether we may detect a secular tendency towards financialisation, while in section 3, I consider the approach that views financialisation as a recurrent phenomenon. I then investigate in section 4 to what extent (neo)classical economics takes account of financialisation. I summarise in section 5 the point of view of Marx and of some of his followers, while in section 6 I briefly discuss Keynes's point of view and its extension and updating by Minsky. Then I point out in section 7 a few significant differences between the "First" and the "Second" financialisation. In section 8, I discuss some broad policy implications of the approaches considered in the preceding sections from the point of view of sustainable development.

2. The Secular Tendency towards Financialisation

All the episodes of financialisation have specific characteristics that have to be thoroughly analysed to understand their causes and implications, but we should first clarify whether these episodes have something in common as is prima facie suggested by the use of the same descriptive word (financialisation), or not.

I start my investigation from a very broad descriptive definition of financialisation that may accommodate different stages of the evolution of «money» in a broad sense (including any variety of money, credit and finance). Financialisation designates the process of evolution which has progressively increased the crucial role of money in the economy and society shaping the forms of exchange, circulation, distribution and accumulation of exchange value. The increasing importance of money refers thus to the increasing influence of the quantity of "money" in its different dimensions on one side, and of its institutional and technological structure on the other side. The second side is particularly important from the evolutionary point of view since monetary and financial instruments are fit for a particular technology of exchange and are introduced, managed and monitored by specific institutions.

The driving force of financialisation as evolutionary process is rooted in a fairly continuous flow of financial innovations, some of which epoch-making, meant to remove existing obstacles to the flexibility of exchanges. According to received wisdom, the adoption of money as medium of exchange has removed the strictures of double coincidence of wants, while credit has developed to relax the cash-in-advance constraint to economic transactions. As these examples suggest, financial innovations aim to extend the set of exchange options in time, space and contents for the decision makers who introduce them, so improving ceteris paribus their expected pay-off. Their systemic effects, however, often turn out to have negative implications, such as financial instability, unemployment, underinvestment in the real sector, stagnation, as well as growing inequality and poverty. When these consequences accumulate their negative effects beyond a certain threshold and their unsustainability becomes clear to a broad and influential constituency, the remedy may be sought in stricter rules of regulation by law and self-regulation, or in more severe measures of financial repression.

The secular tendency towards a progressive financialisation of the economy has developed very slowly also because it has often been constrained -- if not repressed -- for religious, ethical and political reasons. A case in point is the fight against interest rate in the ancient world and in the middle ages. Charging a fee or interest for the use of money was often considered "usury" whatever the rate of interest charged: "usury was forbidden in the Christian Bible, and anti-usury laws were strictly enforced by the Catholic Church until the end of the Middle ages. But in the Jewish scriptures, which were later joined to the Christian books as the "Old Testament", usury was only forbidden between "brothers." Charging interest to foreigners was thus allowed and even encouraged. " (Hodgson Brown, 2010: 57). Therefore, we observe periods of acceleration in the process of financialisation when the financial repression is relaxed and periods of deceleration, even regression, in the process (phases of de-financialisation), when the financial repression is systematically strengthened. Financial repression, however, has never succeeded to interrupt the process for a long period of time.

The claim that we may detect a general tendency towards financialisation is unusual and requires some clarification. I have to emphasise that it refers to the relative weight of "money" and the real economy in societies in which the economic motives are sufficiently autonomous and important to stimulate the concern and creativity of decision makers. This tendency has nothing to do with the alleged historical sequence from a barter economy to one dominated by metallic money, and finally one dominated by credit money as in most standard accounts of the history of money in mainstream economics (see Graeber, 2012: 21-41, for a short critical survey). First, according to anthropological, ethnographic and archaeological knowledge a barter economy has never existed. As Caroline Humphrey maintained by summarising the extensive anthropological research on barter "no example of a barter economy, pure and simple, has ever been described, let alone the emergence from it of money; all available ethnography suggests that there has never been such a thing" (quoted from Humphrey, 1985, in Graeber, 2012: 29). Second, Egyptian hieroglyphics and Mesopotamian cuneiform texts "revealed that credit systems…actually preceded the invention of coinage by thousands of years" (Graeber, 2012: 38). Third, according to the same extensive corpus of knowledge, in the last 5000 years there was an alternation between (i) long periods in which virtual credit money dominated as in the First Agrarian Empires from about 3600 B.C. to 800 B.C., then in the Middle Ages from about 600 A.D. to 1450 A.D., finally after 1971 when the link between currencies and gold was severed by the President Nixon, and (ii) long periods in which commodity money dominated as in the Axial Ages from about 800 B.C. to about 600 A.D., and in the Contemporary Age from about 1450 A.D. to 1971.

The process of financialisation, as here conceived, is driven by financial innovations introduced in periods dominated by metallic money as well as in period dominated by virtual credit money, whenever they are not repressed and look profitable to the innovators. We detect a general tendency towards financialisation because financial innovations in different temporal and specific contexts have something in common: they increase the choice flexibility of decision makers and are adopted in the belief that more flexibility brings about higher returns for the innovators.

The increasing flexibility of choice is realised through rendering assets and capital more liquid and mobile. Financial innovations increase the current and inter-temporal flexibility of choices. This is the case in particular of liquidity-enhancing innovations (see in particular Hicks, 1962, 1974, 1989; see also Vercelli, 1991 and 2013 and the literature surveyed there). In a situation characterised by uncertainty a more liquid set of options, ceteris paribus, is in general valuable for the decision maker as is confirmed by decision theory under uncertainty and, more specifically, by portfolio theory (an early formalisation may be found in Jones and Ostroy, 1984).

Liquidity preference has a cyclical component that may increase or decrease in different phases of the business cycle, but the trend towards more liquid assets and positions proceeds uninterrupted, though with some discontinuity, because it promises to provide more freedom of choice for the decision makers exploiting the enhanced flexibility of choice. A well-known epoch-making example of liquidity-enhancing innovations is the introduction of joint-stock companies as magisterially analysed by Keynes in the 12th Chapter of the General Theory:

"Decisions to invest in private business of the old-fashioned type were… largely irrevocable…With the separation between ownership and management which prevails to-day and with the development of organised investment markets, a new factor of great importance has entered in, which sometimes facilitates investment but sometimes adds greatly to the instability of the system…the Stock Exchange revaluates many investments every day and the revaluations give a frequent opportunity to the individual (though not to the community as a whole) to revise its commitments. It is as though a farmer, having tapped his barometer after breakfast, could decide to remove his capital from the farming business between 10 and 11 in the morning and reconsider whether he should return to it later in the week" (Keynes, 1936: 150-151).

The recent process of financialisation confirms the interpretive key suggested above. A very significant example is the process of securitisation that immediately makes liquid the expected flows of earning that, as in the case of a mortgage, could otherwise extend for a long period of time (Minsky, 1987).[2] Analogously, the emergence and development of shadow banking may be interpreted as a cluster of flexibility-enhancing innovations (Gorton, 2009 and 2010). The systematic use of off-balance sheet operations releases reserve capital making it liquid and extends the range of viable decisions by sheltering them from regulation and supervision. In addition, the systematic use of securitised assets, as collateral in the repo market, greatly increases available liquidity. It is not surprising that any attempt to regulate shadow banking has immediately been stopped by powerful lobbies claiming that the liquidity of the system would have dried up.

The trouble is that flexibility-enhancing innovations very often produce negative externalities at the macroeconomic level. In particular, a microeconomic increase of efficiency produced by enhanced decision flexibility is often accompanied by more systemic instability that may jeopardise systemic efficiency. The trade-off between efficiency and stability had been extensively discussed in the 1960s and 1970s leading most economists to claim that the deregulation of finance would have greatly increased its efficiency without necessarily jeopardising the stability of the system (see, e.g., Friedman, 1960). This gave a crucial support to the liberalisation of finance that was systematically implemented since the late 1970s. We may now say with hindsight that in the above and subsequent debates the advantages of efficiency have been greatly overstated while the disadvantages of instability have been greatly underestimated.

Focusing on the period after the industrial revolution, we observe two periods of acceleration of the long-term process of financialisation that have been defined as periods of financialisation in the strict sense of the word, that is of acceleration of the process leading to rapid structural change altering the functioning rules of capitalism. The First financialisation occurred in the second half of the 19th century and lasted until the beginning of the Great Depression, while the Second financialisation started after the end of the Bretton Woods period (1971) and is going on unchallenged notwithstanding the crisis. Though the immediate causes, modalities and consequences of the First and Second financialisations are different, being intertwined with contemporaneous processes and events, it is possible to find a few significant analogies.

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 266800

Let us first observe that the timing of the First and Second financialisation broadly overlap with the timing of the First and Second globalisation (see Baldwin and Martin, 1999; Borghesi and Vercelli, 2008). This is not surprising since the process of financialisation may thrive only to the extent that the spatial constraints of exchange are removed while the process of globalisation may be implemented to the extent that it is supported by internationalised finance (see Figs. 1 and 2).

Fig.1 and Fig.2 about here

Second, both the process of financialisation and globalisation need a common permissive condition: the liberalisation of cross-country flows of goods, services and capital: "both globalisation waves were driven by radical reductions in technical and policy barriers to international transactions" (Baldwin and Martin, 1999: 1). The two processes have been interrupted and to some extent repressed during the Bretton Woods period by the adoption of a policy strategy, influenced by Keynes, strengthening public control over the economy, in particular over banks and finance. The unilateral repeal by Nixon in 1971 of dollar convertibility started a new era of deregulation soon characterised by the adoption of neoliberal policy strategies that greatly accelerated both the process of globalisation and financialisation.

Third, both processes have been boosted by the exigency of reacting to the slowdown of growth and the consequent reduction of profits in the real economy. In particular, it has been observed that financialisation is typical of declining development trajectories. This is confirmed by the two most recent episodes of financialisation. The First financialisation may be interpreted as the reaction to the long depression (1874-1896) that haunted the industrialised economies at the end of the 19th century and signalled the decline of competitive capitalism, while the Second financialisation may be interpreted as the reaction to the stagflation of the 1970s followed by the deep recession of the early 1980s that signalled the decline of the Keynesian Era.

3. Financialisation as a recurring phenomenon

Financialisation is sometimes conceived as a recurring phenomenon, in the sense that episodes of financialisation lasting typically a few decades alternate with periods of de-financialisation lasting a similar time span (see, e.g., Perez, 2002). While significant analogies may be detected between these phases in different historical periods, different episodes of financialisation are also characterised by significant differences that have to be thoroughly investigated to understand their specific causes and consequences. In the light of the preceding analysis of the long-term tendency towards financialisation, we focus in this section on the analogies between different episodes of financialisation and then in section 7 on some differences between the two most recent episodes.

The crucial challenge of this approach is to clarify under which conditions financialisation may recur. The answer is often framed in terms of a long wave approach (e.g. Arrighi, 1994; Perez, 2002; Phillips, 2006). According to Arrighi (1994), the phases of financialisation characterise the decline of the existing "systemic cycle of accumulation" when its propulsive role in supporting the expansion of the capitalist world-system reaches its limits. This depends not only on the deterioration of the economic conditions as expressed in particular by a declining rate of profit but also on crucial political conditions. The hegemonic country driving a certain systemic cycle of accumulation tries to defend its supremacy by turning to financial capital and by undertaking aggressive (often militarised) initiatives at the world level. Financial capital provides in this view the necessary support for an increasingly imperialistic and colonialist policy strategy. The nexus between financialisation and imperialism has been emphasised in reference to the First financialisation by a succession of authors (in particular Hobson, 1902; Hilferding, 1981 [1910]; Bukharin, 1929 [1915]; Lenin, 1999 [1917]). In Arrighi's opinion the First financialisation at the turn of 19th century is related to the declining hegemony of the British Empire, while the Second financialisation spreading since the late 1970s is related to the decline of the American hegemony. Phillips (2006) stresses that the parabola of the US hegemony follows the same pattern that characterised the decline of Habsburg Spain in the 16th century, the Dutch trading empire in the 18th century and the British Empire in the

19th century. Braudel (1982) who starts the analysis from the end of Renaissance detects a first wave of financialisation starting around 1560, when the Genoese businessmen withdrew from commerce and specialised in finance establishing a symbiotic relation with the Kingdom of Spain (military protection in exchange of abundant credit for its ambitious programmes of expansion and exploration of new commercial routes). A second wave began around 1740 when the Dutch started to withdraw from commerce to become "the bankers of Europe". In a similar vein, Marx (1976 [1867], p.920) in his discussion of primitive accumulation reconstructs a historical sequence which started with Venice in the period of decadence of its commercial power lending huge sums of money to Holland, the emerging commercial power. Analogously, a century later, during the declining part of its commercial parabola Holland lent enormous amounts of capital to the emerging rival, England. A century later, in Marx's own days, declining England was doing the same with the emerging power, the United States.

Another interesting approach to financialisation as recurrent phenomenon has been recently suggested by Carlota Perez. She has updated and further developed with a wealth of historical, technological and institutional details the Schumpeterian view (mentioned in section 3) of the crucial role of finance in promoting innovation and development. In her view each industrial revolution triggers "a basic stable sequence: irruption of the revolution, two or three decades of a turbulent installation period ending in a major bubble collapse, then a recomposition of the socio-institutional framework that regulates finance and sets the conditions for the final deployment period, a time of more organic growth that lasts until maturity and exhaustion are reached, setting the stage for the irruption of the next technological revolution" (Perez, 2009: 781). The period of installation of the new techno-economic paradigm is a phase of Schumpeterian "creative destruction" dominated by finance since "it is the high mobility of finance that will then enable the reallocation of available funds from the established and mature technologies and industries to the emerging ones" (Perez, 2009: ibidem). The period of deployment of the new paradigm after the crisis is a phase of "creative construction" characterised by a recomposition of the contradictions between the development of productive forces and the social relations of

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 266800

production. This is made possible by a re-regulation of finance and the ensuing shift of investment from finance to the real economy. In this view the periods of financialisation are recurrent phases that are associated with pathological consequences such as economic turmoil, financial speculation, shift of investment from the real economy to finance; however in these periods the process of financialisation plays the physiological role of facilitating the structural changes required by the introduction and diffusion of new technologies. In this view the First financialisation has been instrumental to the introduction and diffusion of the age of the automobile, oil and petrochemicals while the Second financialisation facilitated the introduction and diffusion of the new techno-economic paradigm based on information and digital communications. The first phase of creative destruction culminating in the roaring 1920s led to the Great Depression, while the phase of creative construction in the period of Bretton Woods was triggered by a strict control and supervision of finance, and implemented through full-employment Keynesian policies and the progressive construction of a robust welfare state. The recent phase of creative destruction started in the late 1970s led to a double bubble: the dot.com mania collapsing in the years 2000-01 and the housing mania triggering the subprime mortgage crisis in 2007. What is now required is a new phase of more harmonious growth that "will depend on the capacity of the State to restrain the financial casino [...] and to hand over power to production capital, allowing its longer term horizons to guide investment once more " (Perez, 2009, p.790).

Summing up, the recurrence of periods of financialisation alternated with periods of de-financialisation is well documented. We have however to clarify whether the long waves of financialisation occur along a trend of increasing financialisation, or not. I am inclined to interpret the episodes of financialisation as an acceleration of the secular trend discussed in the preceding section and the phases of de-financialisation as a deceleration, sometimes even temporary reversal, of this trend. This view is particularly plausible as soon as we focus on the period after the Industrial Revolution. As mentioned before we may distinguish a first phase of rapid financialisation at the turn of 19th century and a second phase since the late 1970s. I suggest that they may be interpreted as phases of acceleration of the process promoted in both cases by the systematic adoption of laissez-faire policies. The First financialisation was fostered in the second half of 19th century by the widespread adoption in industrialising countries of liberal policy strategies, while the Second financialisation was promoted since the late 1970s by the abandonment of Keynesian policies in favour of neo-liberal policy strategies.

The First and Second financialisation are just the most recent waves that occurred after the industrial revolution but some of their features may be found in earlier episodes of accelerating financialisation including those briefly mentioned above. However the analogies between these episodes should not cloud the deep differences that distinguish them. In section 7, I will hint to some crucial differences between the First and the Second financialisation. In what follows I try to substantiate my working hypothesis on the long-term tendency towards financialisation with the help of the history of economic theory.

4. Financialisation in (Neo) Classical Economics

In classical and neoclassical theory the importance of financialisation is somehow recognised though only in a very rudimentary form. Standard economic theory does not go beyond the basic distinction between a barter economy and a monetary economy. Though these are considered to be two successive stages of the evolution of exchange relations, the historical scope of the two hypotheses and the process leading from the first to the second, are rarely investigated.

A monetary economy is believed to be much more efficient than a barter economy as it relaxes the strictures of "double coincidence of wants" conferring to the economic system a much higher degree of flexibility that allows an enhanced degree of efficiency. It is also recognised that a higher degree of flexibility may lead to more instability. The trade-off between efficiency and instability is managed by forcing a monetary economy to behave as a barter economy ("neutral economy") anchoring it to rigid pegs and constraints: the gold standard, an orthodox budget policy, and strict monetary policy rules. This standard approach raises serious problems that have never been solved in a satisfactory way.

First, as we have seen in section 2, a barter economy has never existed. Second, the deep impact of the evolution of money on the functioning of the economic system has been ignored in the illusion that simple policy rules may force the economy to function as if it were a barter economy (or a neutral money economy).

In particular the process of financialisation that spread and intensified in the second half of the 19° century until WWI progressively changed the functioning rules of capitalism giving a growing economic importance to credit, but the implications for theory and policy of this epoch-making process is almost completely disregarded. In particular the increasingly endogenous process of money creation on the part of the banking system was inconsistent with the Quantity Theory of Money (QTM) but this passed unnoticed with most classical economists.

We find significant exceptions only with a few perceptive neoclassical economists in the most heterodox part of their contributions; in particular Wicksell (cumulative process), Fisher (debt-deflation), and Schumpeter (theory of economic development). They understood that the growing economic importance of new forms of credit emerging in the most industrialised market economies was altering their functioning rules in a crucial way. In these authors the compromise with classical theory was sought by suggesting an institutional/technological dichotomy much more interesting and pregnant than the received dichotomy between a barter economy and a monetary economy.

Wicksell (1898) introduced the distinction between a monetary economy and a pure credit economy: in a pure credit economy circulating money crucially depends on the interest rate rather than on the general price index. A gap between the monetary rate of interest and the real rate of interest, as fixed in a general equilibrium model, triggers a cumulative process that increases the instability of the economy and the impact of its fluctuations. Schumpeter (1934 [1917]) introduced the distinction between "circular flow" and "development" which emphasises the crucial role of credit to support the innovative entrepreneurs in promoting the process of capitalist development escaping the stationary routine of circular flow typical of pre-capitalistic economies. Fisher (1933) introduced the dichotomy between ordinary and great crises: the development of a credit economy may lead to over-indebtedness of economic units and then to price deflation triggering a vicious circle that may degenerate into a great crisis.

These dichotomies are meta-theoretical principles that associate specific approaches to different situations characterised by different institutional assumptions. In each of these three instances, the first side of the dichotomy defines the validity boundaries of standard (general equilibrium) theory. Beyond these boundaries the theory has to be modified in a substantial way to avoid misinterpretations of facts and misleading policy strategies. The second polarity of the dichotomy focuses on the enhanced role of credit in consequence of the First financialisation and its policy implications seen from three different points of view that are mutually consistent. Schumpeter emphasises the positive role of credit in promoting investment, innovation and development. Wicksell (1898) emphasises the increasing instability introduced by credit and its implications for policy. Fisher (1933) points out that under specific conditions the enhanced role of credit may lead to a generalised over-indebtedness of economic units that jeopardises the self-regulation power of markets calling for a massive necessary state intervention .

Though Wicksell, Schumpeter and Fisher acknowledge some of the implications of one important consequence of the First financialisation – the growing economic importance of new forms of credit – their analysis stops short of recognising the impact of financialisation from the social and political point of view.3 These consequences of the First financialisation started to be analysed by Marx and his immediate followers.

5. Financialisation according to Marx and his immediate followers

Marx was the first to develop a radical critique of the Quantitative Theory of Money (QTM) mainly because it ignores the essence of circulation of goods in a monetary economy:

"The illusion that it is [...] prices which are determined by the quantity of circulating medium [...] has its roots in the absurd hypothesis [...] that commodities enter into the process of circulation without a price, and that money enters without a value..." (Marx, 1976: 217-8.)

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 266800

This sharp criticism of the TQM may also explain why many interpreters and followers of Marx reached the conclusion that money is not so important in the understanding of the basic laws of motion of capitalism. However, this conclusion does not take into account the role of "money" as technological and institutional structure and therefore the crucial role of the financialisation process as here defined. A case in point is the claim that finance is a symptom of stagnation and crisis of the capitalist system rather than its cause (as recently maintained by Palley, 2007, and Orhangazi, 2007). To support this assertion, Bellamy Foster (2008: 9) quotes Marx: "The superficiality of political economy shows itself in the fact that it views the expansion and contraction of credit as the cause of the periodic alterations of the industrial cycle, while it is a mere symptom of them". Here Marx correctly emphasises that credit is endogenous to the capitalist dynamics but he refers to credit as quantity and not to the evolution of credit as institution and technological structure of circulation and accumulation that is part and parcel of the long-term laws of motion of capitalism. In Marx, the role of money as technological and institutional structure in capital circulation plays a crucial role in identifying different forms and phases of exchange and circulation of commodities, money and capital. What follows is a much simplified reconstruction of the genetic process of circulation forms leading to capitalistic circulation forms (a more detailed reconstruction may be found in Vercelli, 1973, Appendix 1):

U – U	Immediate exchange of use values (occasional barter)
C – C	Immediate exchange of commodities
C – M – C	Simple circulation of commodities
C – M – C’	Petty (or simple) commodity production
M – C – M’	Circulation of commercial capital
C .... P .... C’	Circulation of commodities in industrial capitalism
M – C .... P .... C’ – M’	Circulation of money capital

where U stands for use value, C stands for commodities, M for money, ...P... for the process of production while M' = M+ΔM and C’= C+ΔC designate a positive surplus over the initial quantity.

This simplified sequence of circulation forms is sufficient to clarify how different is Marx's approach to the evolution of money from the Classical and Neo-classical approach. First Marx does not start from the dubious category of "barter economy" as barter is seen as a direct exchange not between commodities but between objects having a utility, though not yet a value of exchange (U – U). Barter exchange is seen thus as occasional and local while the (neo)classical concept of barter economy implies its systematic nature. The simple circulation of commodities that characterises early mercantile societies presupposes a long and complex evolution from the immediate exchange of commodities where the exchange value of commodities starts to be appreciated in a system characterised by simple (or petty), but systematic, production of commodities within an emerging division of labour. Marx's rejection of the concept of "barter economy" is fully consistent with the most up-to-date archaeological and anthropological knowledge mentioned in section 2 (see Graeber, 2011).

In the analysis of the evolution of circulation forms, Marx adopts a sort of Darwinian method applied to the morphogenesis of exchange structures, i.e. to the evolution of circulation and accumulation of commodities, money and eventually capital. In this approach, the evolutionary process is in principle both logical and historical. The structure of the most recent stage encompasses the structure of the preceding stages altering their meaning, role and functioning rules. As a consequence of this evolutionary process, money as structure plays an increasingly crucial role by enhancing the flexibility of choices that become increasingly independent of time and space and utility content. The consequent increasing separation and contradiction between use and exchange value, however, increases the potential instability of the process. Exchange value increases progressively its domination over use value (fetishism of money and capital) while the needs of concrete people are increasingly displaced by the needs of capital valorisation (alienation).

In this approach, financialisation is represented by the increasingly crucial role of money capital in the circulation of commodities. The typical circulation circuit starts from money and aims at the end to realise the maximum possible surplus value in money form. The circulation of commodities characterising commercial capital and industrial capital is thus "subsumed" under the process of circulation of money capital. This clarifies in what sense according to Marx there is a long-run tendency towards financialisation. What we call financialisation is nothing but the progressive process of autonomisation of exchange value from use value and the progressive domination of the first over the second. In this sense, financialisation is not just a symptom of the basic contradictions of capitalism but is an essential feature of the law of motion of capitalism.

Marx started to investigate the specific features and consequences of the process of first financialisation that was emerging during the late part of his life. He focused the analysis mainly on the process of concentration and centralisation of capital determining the decline of competitive capitalism. This is motivated by the attempt of single capitalists to increase their absolute profits since: "… a capitalist controlling large capital will make more profit in absolute terms than a smaller capitalist making apparently high profits." (Marx, 1976 [1867]: 331.) Marx predicted that this process would have reduced in principle the profit rate:

"the same reasons that produce a tendential fall in the general rate of profit also bring about an accelerated accumulation of capital and hence a growth in the absolute magnitude or total mass of the surplus labour (surplus value, profit) appropriated by it." (Marx, ibidem.)

In consequence of this process, in the second half of the 19th century competitive capitalism has been superseded by monopoly capital dominated by increasingly big and powerful monopolies and oligopolies. This triggered a series of strategies meant to react against the tendency to stagnation induced by monopoly capital. We may understand the process that we have here called First financialisation as the consequence of these strategies. Hilferding (1981 [1910]) maintained that, as a result of this process, a new stage of capitalism had emerged that he called "finance capitalism", a stage that Lenin (1999 [1917]) considered as the "ultimate stage of capitalism". Building on Hobson (1902), Hilferding analysed the link between the economic strategies of the emerging oligopolies and the imperialist policies pursued by the governments of the most industrialised powers. A substantial unification of industrial, mercantile and banking interests had weakened the earlier liberal request of a shrinking state's intervention in the economy; instead, finance capital sought the support of the state to the interests of the ruling class. Hilferding claimed that this convergence of interests was supported and coordinated by big investment banks that played the role of strategic decision makers in the new stage of capitalism. In the words of Lenin, in consequence of this transformation "the typical ruler of the world became finance capital, a power that is peculiarly mobile and flexible, peculiarly intertwined at home and internationally, peculiarly devoid of individuality and divorced from the immediate processes of production....so that literally several hundred billionaires and millionaires hold in their hands the fate of the whole world" (Lenin 1999 [1917]: 14).

The Marxist tradition of thought on financialisation has been kept alive after WWII mainly by Sweezy and his collaborators (in particular Baran and Magdoff) in a few books (see in particular Baran and Sweezy, 1966; Magdoff and Sweezy, 1987) and many articles published mainly in the Monthly Review. Baran and Sweezy (1966) resumed, extended and updated the analysis of "monopoly capital" started by Hilferding taking into account, but underplaying, the role of financialisation in consequence of its reduced role in the three decades before the publication of the book. In subsequent work, however, financialisation progressively reacquired a more significant role in consequence of the Second financialisation. Sweezy observed in 1995 that by the end of the 1980s "the old structure of the economy had given way to a new structure in which a greatly expanded financial sector had achieved a high degree of independence and sat on top of the underlying production system" (Sweezy, 1995: 8-9). John Bellamy Foster, who succeeded to Sweezy as director of the Monthly Review, suggested calling the recent phase since the 1970s "monopoly-finance capital" as a period in which financialisation has become a permanent structural necessity of the stagnation-prone economy (Bellamy Foster, 2006). This recent phase is not seen as a new stage of capitalism but as an unstable metamorphosis of the monopoly stage. This approach contributes to clarify the link between the tendency to stagnation of Monopoly capital that underlies both the First and the Second financialisation but underplays their radical differences (see section 7).

FESSUD

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 266800

6. Financialisation in Keynes and Minsky

Keynes in the General Theory (GT) resumes in a critical mood the traditional distinction between barter economy and monetary economy showing that the second cannot be forced to work as a barter economy just through monetary means. We have thus to abandon the illusion of rendering "neutral" a monetary economy since its functioning rules are necessarily different from those of a barter economy and evolve in an irreversible way requiring a new theoretical approach and new policy rules. The choice of Keynes of eventually adopting on this issue the language of classical economics (dichotomy between a barter and a monetary economy) was intended to emphasise the radical differences of meaning and implications to be attributed to the same dichotomy but in so doing the argument lost in clarity and pregnancy. We find better foundations of Keynes's monetary theory of production in preparatory works of the General Theory (in particular Keynes 1933) where he distinguishes between a co-operative economy (or "real-exchange economy") which uses money but uses it merely as a neutral link between transactions in real things and real assets and does not allow it to enter into the "motives and or decisions" (Keynes, 1933: 408), and an entrepreneurial economy (or "monetary economy") in which "money plays a part of its own and affects motives and decisions and is, in short, one of the operative factors in the situation, so that the course of events cannot be predicted, either in the long period or in the short, without a knowledge of the behaviour of money between the first state and the last" (ibidem). Keynes clarifies further the suggested meaning to be attributed to the dichotomy by quoting Marx's distinction between "simple circulation of commodities" (C-M-C) broadly corresponding to his co-operative economy, and "circulation of money as capital" (M-C-M') broadly corresponding to his entrepreneurial economy. In the light of this analysis we may better understand the new Keynesian meaning of the dichotomy adopted in the GT: the "barter economy" should not be interpreted as in the classical version but in the sense of Marx's C-M-C: money is not the end but the means of exchange, while in a "monetary economy" surplus money, i.e. profit, is the goal of the process and crucially influences decisions. We may thus fully understand why, according to Keynes, the trouble with classical economics is that it assumes axioms fit for a barter economy (C-M-C) rather than for a monetary economy (M-C-M') to which it is applied. In chap 17 of the GT, Keynes clarifies that in a monetary economy the investment decisions are taken within a short-term portfolio approach. Investible funds are allocated in such a way to maximise short-run expected returns. Whenever the expected returns are higher in finance than in the real economy, finance thrives and industrial investment declines. This is what happened during the Second financialisation as a consequence of the systematic adoption of neoliberal policies and of asymmetric monetarist rules on the part of central banks (see section 7). As a consequence of this process the higher expected returns in finance crowded out productive investment slowing down the average rate of growth of GDP (see Orhangazi, 2007.)

While classical economics recognises a long-term tendency towards financialisation in a rudimentary way only to deny that this tendency matters, Keynes argues that the functioning rules of a monetary economy cannot be forced by simple policy rules to simulate the functioning rules of a barter economy. Minsky builds upon Keynes' insights to show that we have to distinguish between different stages of a monetary economy that alter the functioning rules of the economy in a significant way. His Financial Instability Hypothesis (Minsky, 1986) refers not to a generic monetary economy but to a "sophisticated monetary economy", a mature stage of the evolution of capitalism where credit and finance play a crucial role, a stage that takes account of the evolution occurred after the publication of the GT. Moreover, according to Minsky even a "sophisticated monetary economy" undergoes an evolution. The last stage examined by Minsky (1987) is the "money manager capitalism": an economic system characterised by highly leveraged funds seeking maximum returns in an environment that systematically underestimates risk (ibidem; see also Wray, 2009). In an environment characterised since the 1970s by progressive deregulation and increasingly permissive supervision of financial institutions, money managers relied on securitisation to reduce risk and increase profits through fees income for loan origination. In Minsky's view, this was consistent with the contemporaneous globalisation of finance since securitisation creates assets without national boundaries. The disintermediation of banks and their reaction based on securitisation and shadow

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 266800

banking produced a decline of the importance of banks in favour of financial markets. In the US, for example, "the bank share of all financial assets fell from around 50% in the 1950s to around 25% in the 1990s" (Wray, 2009: 57). Minsky (1987) observed that "banks appear to require a spread of about 450 basis points between interest rates earned on assets less that paid on liabilities. This covers the normal rate of return on capital, plus the required reserve "tax" imposed on banks (reserves are non-earning assets), and the cost of servicing costumers. By contrast, financial markets can operate with much lower spreads precisely because they are exempt from required reserve ratios, regulated capital requirements, and much of the costs of relationship banking" (Wray, 2009: 58). Minsky showed a far-sighted foresight when he predicted that money manager capitalism was bound to exhibit an increasing financial instability, since the transfer of risk to the market was going to encourage risk-taking without insuring it, while big governments had abandoned full employment policies and central banks were inundating markets with liquidity encouraging speculation and tolerating increasing leverage ratios. Under these circumstances and policy rules the collapse of the system could only have been postponed by a continuous inflation of assets values. As soon as the price of housing started to decline, the instability of the system became evident and incontrollable with standard policy instruments (a detailed application of Minsky's analysis of money management capitalism to the recent crisis may be found in Wray, 2009).

7. The Differences between First and Second Financialisation

We have focused so far on the analogies between different episodes of financialisation identifying a secular trend towards increasing financialisation and some specific analogies between different episodes of accelerated financialisation. However the analysis of a particular episode of financialisation would be misleading without thoroughly investigating its peculiar features. In this section, we limit ourselves to hint at some significant differences between First and Second financialisation keeping in mind that the long-term process of financialisation, as well as its accelerations and decelerations, has never been homogeneous through time and space as it is affected by cultural, material, and political

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 266800

conditions which vary in different times and areas. Financialisation, as the related process of globalisation or the existing forms of capitalism, has always been "variegated" as has been correctly emphasised (see, e.g., Brown and Spencer, 2013). We may build, however, an ideal-type of the First and one of the Second financialisation aiming to capture in abstract terms some features that are similar in many countries within about the same period. The comparison between the two ideal-types may be thus considered only as a preliminary step propaedeutic to a thorough analysis of financialisation in a specified area and period.

First of all, we have to distinguish two influence channels of finance over the real economy: one extrinsic and one intrinsic. The extrinsic channel is as old as credit itself and is based on the cash-in-advance constraint of any monetary economy. In this sense, finance has always had a crucial power as a permissive condition of political and economic decisions. Charles the Fifth was elected as ruler of the Holy Roman Empire with the support of 543.000 florins (broadly equivalent to 60,000 oz(t) of gold) received from the Fuggers and could not have fought the wars that consolidated an empire "on which the sun never set" without continuous credit by them and other banks. Analogously the kingdom of Castilla could not have started the ambitious policy of exploration of new ways of international trade without the support of Genoese bankers. In the mercantilist period, banks assumed a systematic role in supporting and conditioning the colonialist and imperialist policies of the most powerful states. This kind of extrinsic power exerted by finance is thus pre-existent to capitalism. However, this power became more systematic and more influential after the industrial revolution when credit became a crucial condition of great part of industrial investment, in particular the most innovative one, as it was well understood by Schumpeter (1934 [1911]). During the First financialisation this power started to be exerted in a more systematic way leading finance to play the role of coordination and orientation of capitalistic decisions as emphasised by Hilferding (1981 [1910]). At the turn of 19th century a few major investment banks became so powerful to be considered almost as private planning authorities. However the influence of finance on the real economy mainly affected the possible decisions that could be implemented rather than their contents. On the contrary, the influence of finance became growingly intrinsic during the Second financialisation by systematically affecting the choices of non-financial firms and households not only as far as their viability is concerned but also in reference to their very contents. As Keynes foresaw in chap.17 of the General Theory, the logic of choice of any subject in any field is becoming more and more influenced by the financial paradigm of portfolio selection within a time horizon that is compelled to become as short as that of financial choices. The choices consistent with long-run sustainability are thus becoming increasingly non-competitive as compared with alternative choices since they imply immediate costs and significant benefits only in a relatively distant future (see section 8).

A second crucial difference has to do with the different role of banks. If we look at the two recent episodes of financialisation from the point of view of banking, we may call the First financialisation as "bank-based financialisation" while the Second financialisation is rather a "market-based financialisation" (see Orléan, 2009). This is not to say that big banks have played a subordinate role in the Second financialisation because they played a crucial role in shaping and manipulating financial markets directly (Euribor, ratings of crony agencies, "creative accounting", and so on) or indirectly (through governments and regulators); the crucial difference has been, however, that in the second case they have exerted their power in a more indirect way, while the financial motivations have become decisive even within the real economy.

A third crucial difference may be seen in the strategy of expansion of capital investment. During the First financialisation, the prevailing capitalist strategy pointed to an expansion, with the help of the state, in new geographical areas (imperialism and colonialism). During the Second financialisation, the expansion sought was not so much territorial (although new forms of imperialism and colonialism continued to play a crucial role) but aimed mainly to the systematic invasion of the "territory" formerly occupied by the Welfare State (health, education, pensions, and so on). In particular the rules underlying the introduction of the Euro and the austerity policies implemented after the crisis went a long way towards the dismantling of the Welfare State in the EU, and the systematic privatisation of health, education, and social security services (including pensions). The invasion of these broad spaces traditionally occupied by public expenditure plays in the Second financialisation a role similar to that played by colonialism and imperialism during the First financialisation extending the shock therapies pursued in developing economies also to the core countries of Europe and North America.

Finally a fourth crucial difference has to do with the active role of powerful central banks in the Second financialisation. Their policy of "asymmetric monetarism" inaugurated by Greenspan in 1987 and pursued afterwards by Bernanke and most other central bankers has significantly distorted the appeal of industrial investment as compared to that of financial investment. Central banks reacted immediately to any inflationary symptom originating in the real economy by adopting restrictive monetary measures (in particular by promptly increasing the rate of discount), while on the contrary asset inflation was not repressed but rather sustained by massive creation of liquidity whenever the upward trend of asset prices looked undermined. This policy translated in an implicit insurance to financial investment and speculation crowding out industrial investment (Orhangazi, 2007; Cecchetti and Kharroubi, 2013). The wealth increase of financiers and rentiers sustained to some extent aggregate demand but not enough to compensate for the declining profits and wages in the industrial sector. The stagnation tendency that prompted the process of financialisation was eventually strengthened by financialisation itself. The latter cannot be considered as a mere symptom of the stagnating tendencies of Monopoly Capital as maintained by a few Marxists (see e.g. Bellamy Foster, 2008) but as a crucial determinant of capitalist evolution and its laws of motion.

8. Financialisation, Policy Implications and Sustainability

The (Neo- or New) Classical mainstream sees financialisation as a physiological process of evolution of capitalism, spontaneously developed by markets to increase economic efficiency and returns. In this view, the best results may be obtained through a laissez-faire policy strategy thereby avoiding any attempt at conditioning or limiting the economic process.

The Keynesian mainstream sees financialisation as a process of evolution having both physiological and pathological aspects. In this view the right policy strategy should aim to filter the positive effects from the negative effects. This may be obtained by limiting banks' freedom of action and by repressing excessive speculation (for example by imposing a Tobin tax or financial transaction tax). According to most streams of heterodox economics the process of financialisation is mainly a pathological process of evolution that requires either a radical reform of capitalism or its superseding. The suggested policy recipes vary with the theoretical framework and the normative objectives leading to different normative views but their analysis goes beyond the scope of this paper.

According to the vision sketched in this article, financialisation is a contradictory process. On one side, it aims to increase the freedom of decision makers who could thus use the extra freedom to improve the wellbeing of the human lot. On the other side, in the absence of apt institutional and policy constraints, the advantages of the enhanced decision freedom are reaped by a small minority of financiers, rentiers and complacent politicians as it was evident in the recent crisis. The process of financialisation is thus driven by the search for expanded decision freedom on the part of the agents who adopt financial innovations. This explains the long-run tendency towards financialisation and seems, at first sight, to justify it without reservations. The trouble is that the freedom, power and wealth so created are unevenly distributed across society and are appropriated by the innovators (e.g. the top managers of a corporation) or their principals (the shareholders). Whether there is an effective trickle-down mechanism or not to share the advantages of financial innovations to all citizens depends on the nature of the specific innovation and the institutional and political conditions. Generally speaking, these spontaneous redistributive mechanisms either do not exist or are insufficiently effective to avoid increasing inequality (Stiglitz, 2012). In the absence of apt redistributive policies, the inequality tends to increase further seriously jeopardising social sustainability. As for environmental sustainability, the growing dominance of exchange value over use value tends to undermine the quality of the environment since the maximisation of exchange value is constrained within an

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 266800

increasingly shorter time horizon, while sustainability is a very long-term objective focused on use value within clear ethical constraints.

The fact that, in principle, there is a deep conflict between unfettered financialisation and sustainability does not imply that the effective evolution of finance has always undermined sustainability in all its dimensions. The actual process has often been affected and constrained by cultural, religious and political constraints meant to preserve as much as possible the human, social and environmental values of sustainability. A thorough assessment of the long-term impact of finance on sustainability has thus to be assessed period by period and location by location taking account of the institutional and policy constraints, but this goes beyond the scope of this article. A sharper analysis of the effects of finance on sustainability is possible for the periods of accelerating financialisation when its constraints are temporarily removed or relaxed. This happened, as we noticed above, in periods of economic and political decline when the arguments of financiers and rentiers became more persuasive for a broad audience looking for remedies against stagnation while the counterarguments became weaker being identified with the declining status quo. In the short period the acceleration of financialisation typically succeeded to slow down the decline of profits and growth. The liberalisation of finance increases financial profits, while the increasing wealth and income of financiers, rentiers and their cronies may support aggregate demand for a while. This convinced many observers of the therapeutic virtues of financialisation; but this happened to be true only in the short period. The kind of relief from stagnation, however, is likely to become unsustainable in the longer period exactly because it is obtained by relaxing the constraints to the process increasing the conflict with sustainability.

In my view, in the Second financialisation the pathological aspects by far exceeded the alleged advantages: in particular the systemic negative externalities happened to be much bigger than a few micro advantages accruing to some financial institutions. In particular, it led to an unprecedented concentration of wealth and income that produced a vicious circle with a parallel concentration of power undermining sustainability from the economic (unemployment), social (poverty and inequality) and environmental (short-termism) points of view. Moreover, what is even worse, this vicious circle is now undermining democracy itself: without democracy we cannot hope to solve any of the problems mentioned above.

In the light of the analysis here developed I have to conclude that sustainable financialisation is an oxymoron because financialisation is about relaxing all possible constraints to economic decisions, while sustainability is about fixing constraints to economic decisions to safeguard economic, social and environmental objectives and constraints. Sustainable finance, however, is not necessarily a utopian perspective provided that finance is seen not as an end in itself but as an instrument to support sustainable development.

---

[1] An often cited definition that gives basic substance and articulation to this descriptive approach is that of Epstein (2001): "Financialization refers to the increasing importance of financial markets, financial motives, financial institutions, and financial elites in the operation of the economy and its governing institutions, both at the national and international level." (Epstein 2001: 1).

[2] The introduction of joint-stock companies may be interpreted as an early epoch-making example of securitization where the capital of a firm (including fixed capital) is represented by a given number of tradable securities (shares).

[3] This is not completely true of Schumpeter whose analysis goes much beyond the strictly economic aspects of financialisation. The focus of his analysis, however, was not specifically directed to investigate the consequences of financialisation but rather to grasp the implications of oligopolistic capitalism and of the state intervention in the economy.

Figures

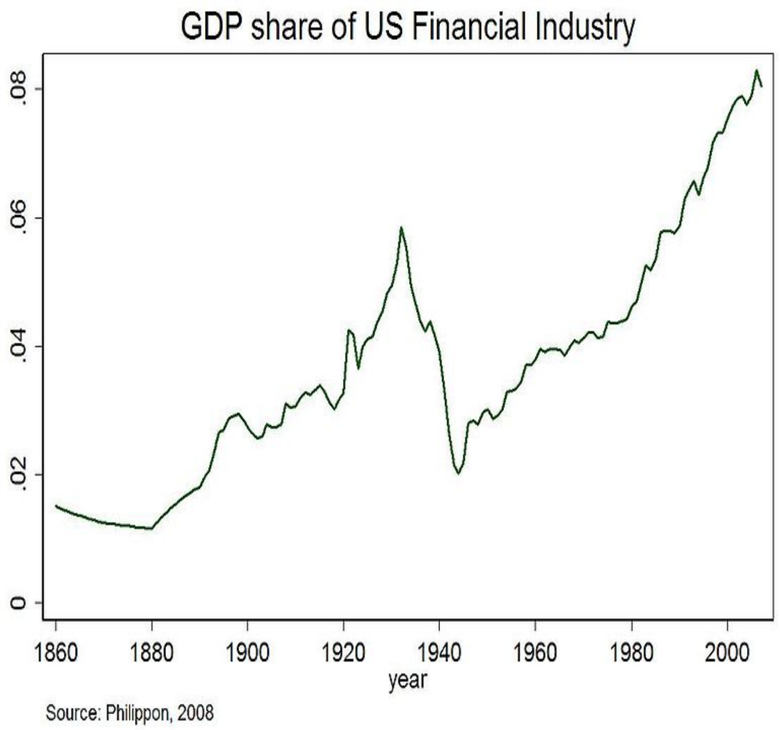
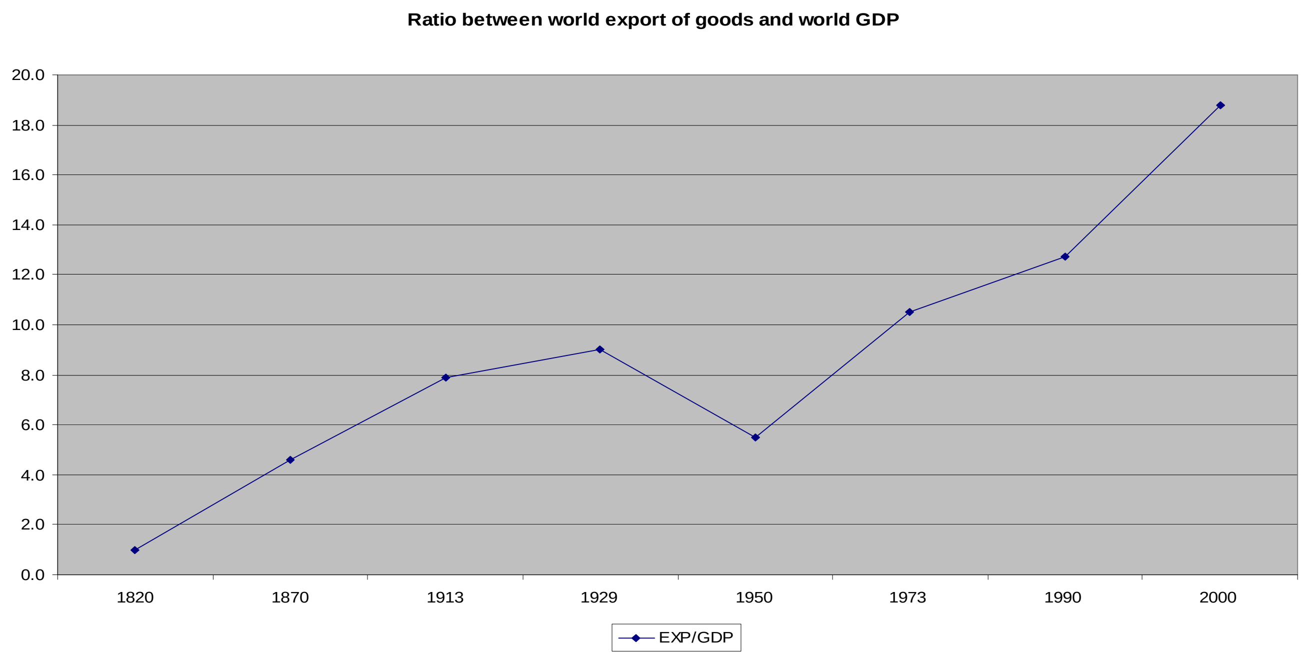


Fig. 1. An index of financialisation: GDP share of US financial industry



Source: Maddison (2001) updated using WTO (2001)

Fig. 2 An index of globalisation: ratio between world export of goods and world GDP

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 266800

References

Arrighi, G. 1994. The Long Twentieth Century: Money, Power and the Origins of Our Times. New York: Verso.

Baldwin, R.E., and Ph. Martin. 1999. "Two Waves of Globalisation: Superficial Similarities, Fundamental Differences." Working Paper 6904, National Bureau of Economic Research, Cambridge MA.

Baran, P.A., and P.M. Sweezy. 1966. Monopoly Capital. New York: Monthly Review Press.

Brown, A., and D. Spencer. 2013. "Variegated Financialisation? A Comparative Analysis of the Changing Role of Finance in Economy and Society." FESSUD discussion paper.

Bellamy Foster, J. 2006. "Monopoly-Finance Capital." Monthly Review 58, no. 7: 1-14

Bellamy Foster, J. 2008. "The Financialization of Capital and the Crisis." Monthly Review 59, no. 11, 1-19.

Borghesi, S., and A.Vercelli. 2008. Sustainable Globalisation. London: Palgrave.

Braudel, F. 1982. The Wheels of Commerce, Civilization and Capitalism 15th-18th Century. Berkeley: University of California Press.

Bukharin, N.I., 1929 [1915]. Imperialism and the World Economy. London: International Publishers.

Cecchetti, S.G., and E. Kharroubi. 2013. "Why Does Financial Sector Growth Crowd out Real Economic Growth?" Bank for International Settlements, available online at: https://evbdn.eventbrite.com/s3-s3/eventlogos/67785745/cecchetti.pdf

Epstein, G.A. 2001. "Financialization, Rentier Interests, and Central Bank Policy." Manuscript, Department of Economics, University of Massachusetts, Amherst, MA (December).

Epstein, G.A., ed. 2005. Financialisation and the World Economy. Northampton, MA: Edward Elgar.

Fisher, I. 1933. "The Debt-Deflation Theory of the Great Depression." Econometrica 1 (October): 337-57.

Friedman, M. 1960. A Program for Monetary Stability. New York: Fordham University Press.

Gorton, G. 2009. "Information, Liquidity, and the (Ongoing) Panic of 2007." American Economic Review, Papers and Proceedings 99, no. 2: 567-572.

Gorton, G. 2010. Slapped by the Invisible Hand: the Panic of 2007. Oxford: Oxford University Press

Graeber, D. 2012 [2011]. Debt: the First 5,000 Years. Brooklyn, NY: Melville House Publishing.

Hicks, J. 1974. The Crisis in Keynesian Economics. New York: Basic Books.

Hicks, J. 1962 [1982]. "Liquidity." In Collected Essays in Economic Theory, Vol. 2, ed. J. Hicks, 238-247. Harvard University Press.

Hicks, J. 1989. A Market Theory of Money. Oxford: Oxford University Press.

Hilferding, R. 1981 [1910]. Finance Capital, A Study of the Latest Phase of Capitalist Development. London: Routledge.

Hobson, J.A. 1902. Imperialism: A Study. New York: James Pott and Co.

Hodgson Brown, E. 2010. The Web of Debt: The Shocking Truth About Our Money System And How We Can Break Free (Fourth ed.). Baton Rouge, Lousiana: Third Millenium Press.

Humphrey, C. 1985. "Barter and Economic Disintegration." Man 20: 48-72.

Jones, R., and J. Ostroy. 1984. "Flexibility and Uncertainty." Review of Economic Studies 51: 13-32

Keynes, J.M. 1933. "A Monetary Theory of Production." The Collected Writings of John Maynard Keynes, Vol. XIII, London: Macmillan: 408-411.

Keynes, J.M. 1936. The General Theory of Employment, Interest and Money, London, Macmillan The Collected Writings of John Maynard Keynes, Vol. VII, London: Macmillan, 1973.

Lenin, V.I., 1999[1917]. Imperialism, the Highest Stage of Capitalism. Resistance Books, Chippendale, Australia..

Magdoff, H., and P.M. Sweezy. 1987. Stagnation and the Financial Explosion, New York: Monthly Review Press.

Marx, K. 1976 [1867]. Capital, Vol.1. London: Penguin Books.

Marx, K. 2006 [1894]. Capital, Vol.3. London: Penguin Books

Minsky, H.P.. 1986. Stabilizing an Unstable Economy. New Haven and London: Yale University Press.

Minsky, H.P. 1987. "Securitization." Handout Econ 335A, mimeo. In Levy Archives.

Orhangazi, O. 2007. "Financialization and Capital Accumulation in the Non-Financial Capital Sector." Working Paper Series, no. 149, Political Economy Research Institute.

Orléan, A. 2009. De l'euphorie à la panique : Penser la crise financière [From Euphoria to Panic: Thinking of the Financial Crisis]. Paris: Éd. de la Rue d'Ulm.

Palley, T. 2007. "Financialization: What It Is and Why It Matters." Working Paper No.525, The Levy Economics Institute of Bard College.

Perez, C. 2002. Technological Revolutions and Financial Capital: the Dynamics of Bubbles and Golden Ages, Cheltenham, Elgar.

Perez, C. 2009. The double bubble at the turn of the century: technological roots and structural implications, Cambridge Journal of Economics, 33: 779-805.

Philippon, T. 2008. "The Evolution of the US Financial Industry from 1860 to 2007: Theory and Evidence." NBER Working Paper No. 13405.

Phillips, K. 1994. Arrogant Capital: Washington, Wall Street, and the Frustration of American Politics. New York: Little, Brown, and Co.

Phillips, K. 2006. American Theocracy: The Peril and Politics of Radical Religion, Oil, and Borrowed Money in the 21st Century. London: Penguin Books.

Schumpeter, J.A. 1934 [1911], The Theory of Economic Development, English Transl.. New Brunswick and London: Transaction Publishers.

Sen, A.K. 1991. Money and Value: On the Ethics and Economics of Finance, Bank of Italy, Paolo Baffi Lectures on Money and Finance, Rome: Edizioni dell'Elefante.

Stiglitz, J.E. 2012. The Price of Inequality: How Today's Divided Society Endangers our Future. New York and London: W.W: Norton & Co.

Sweezy, P.M. 1995. "Economic Reminiscences." Monthly Review 47, no. 1: 1-9.

Vercelli, A. 1973. Teoria della struttura economica capitalistica: Il metodo di Marx e i fondamenti della critica all'economia politica [Theory of the Capitalistic Economic

Structure: Marx's Method and the Foundations of a Critique of Political Economy]. Torino: Fondazione Luigi Einaudi.

Vercelli, A., 1991, Methodological Foundations of Macroeconomics: Keynes and Lucas. Cambridge: Cambridge University Press.

Vercelli, A. 2013. "Weight of Argument and Liquidity Preference: Keynes after Savage and Choquet." Paper presented at the ESHET 2013 Conference.

Wicksell, K. 1898. Interest and Prices, English Translation 1936, New York: Sentry Press.

Wray, L. R. 2009. "Money Manager Capitalism and the Global Financial Crisis." Real-World Economics Review 51: 55-69.

This project has received funding from the European Union's Seventh Framework Programme
for research, technological development and demonstration under grant agreement no 266800

Financialisation, Economy, Society and Sustainable Development (FESSUD) is a 10 million euro project largely funded by a near 8 million euro grant from the European Commission under Framework Programme 7 (contract number : 266800). The University of Leeds is the lead co-ordinator for the research project with a budget of over 2 million euros.

THE ABSTRACT OF THE PROJECT IS:

The research programme will integrate diverse levels, methods and disciplinary traditions with the aim of developing a comprehensive policy agenda for changing the role of the financial system to help achieve a future which is sustainable in environmental, social and economic terms. The programme involves an integrated and balanced consortium involving partners from 14 countries that has unsurpassed experience of deploying diverse perspectives both within economics and across disciplines inclusive of economics. The programme is distinctively pluralistic, and aims to forge alliances across the social sciences, so as to understand how finance can better serve economic, social and environmental needs. The central issues addressed are the ways in which the growth and performance of economies in the last 30 years have been dependent on the characteristics of the processes of financialisation; how has financialisation impacted on the achievement of specific economic, social, and environmental objectives?; the nature of the relationship between financialisation and the sustainability of the financial system, economic development and the environment?; the lessons to be drawn from the crisis about the nature and impacts of financialisation? ; what are the requisites of a financial system able to support a process of sustainable development, broadly conceived?'

This project has received funding from the European Union's Seventh Framework Programme
for research, technological development and demonstration under grant agreement no 266800

THE PARTNERS IN THE CONSORTIUM ARE:

Participant Number	Participant organisation name	Country
1 (Coordinator)	University of Leeds	UK
2	University of Siena	Italy
3	School of Oriental and African Studies	UK
4	Fondation Nationale des Sciences Politiques	France
5	Pour la Solidarite, Brussels	Belgium
6	Poznan University of Economics	Poland
7	Tallin University of Technology	Estonia
8	Berlin School of Economics and Law	Germany
9	Centre for Social Studies, University of Coimbra	Portugal
10	University of Pannonia, Veszprem	Hungary
11	National and Kapodistrian University of Athens	Greece
12	Middle East Technical University, Ankara	Turkey
13	Lund University	Sweden
14	University of Witwatersrand	South Africa
15	University of the Basque Country, Bilbao	Spain

Published in Leeds, U.K. on behalf of the FESSUD project.