

THE FINANCIALIZATION OF MODERN ECONOMIES IN MONETARY CIRCUIT THEORY

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[...] the industrial sphere has been pushed into the background and the financial tail now seems to be wagging the economic dog (Rousseas, 1994, p.323)

It is largely believed today that financial phenomena have the ability to wreck havoc on the economy: “the financial economy is growing to a level where it is starting to influence more profoundly the fundamentals of the real economy [...] regulators are focusing much more on asset bubble risks or a potential hedge fund crisis with risks crystallising in the financial economy because of the wash-over effects on the real economy (Fahrer, 2007, p.21)”. In this chapter, we aim at the definition of an additional macroeconomic sector defined as a broad accounting category in the macroeconomic stock-flow framework developed by Lavoie and Godley (2001, 2003, 2007). Starting from the methodological observation that many financial services supplied by banks today do not fit into the categories of monetary and financial intermediation as defined by the theory of money emissions (TME hereafter), we argue that the theoretical distinction between banks and non-bank financial institutions (NBFIs hereafter) such as hedge funds, insurance companies, venture capital firms, private equity firms, pension and mutual funds etc... is blurred in circuitist and post-Keynesian literature. Following the fundamental insights of the TME (Schmitt, 1984, 1996; Gnos, 1998, 2003, 2005; Rossi, 1998, 2006) on monetary and financial intermediation, we consider the current process of financialization in the world economy. Further, we draw on Karl Polanyi's groundbreaking work last century on haute finance. Although we abstract from the geopolitical, institutional and historical setting of his time, we nevertheless retain some of the features of Polanyi's concept of haute finance that pertain to the world economic system today. We finally attempt to redefine haute finance as a new macroeconomic sector in the Lavoie-Godley [LG from now on] model in order to single out the far-reaching macroeconomic consequences of the financialization of modern economies.

I) Money and Financial Intermediation In Monetary Circuit Theory

1) The Function of Banks In Post-Keynesian And Monetary Circuit Literature

A) The Function of Banks in Post-Keynesian Literature

A common statement in post-Keynesian monetary analysis is that “banks, after all, are essentially in the business of selling credit” (Moore 1988, p.373). To be precise, commercial banks participate in the process of financial intermediation, by means of which deficit-spending units borrow from saving units the resources they need to finance their net flow of expenditures (Ball 1964, p.168).

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In post-Keynesian theory, banks are thus seen as the main actors in the process of financial intermediation. However, this important feature of banks overlooks a fundamental function of banks in monetary circuit literature that is to say monetary intermediation. Arguably, post-Keynesian theory also fails to understand the central role played by double-entry bookkeeping in governing banking activity.

B) The Function of Banks In Monetary Circuit Literature

In the TME, banks are interposed between households and firms. The fusion of money and real emissions (viewed as instantaneous events) enables the monetisation of productionⁱⁱ. Banks actually emit a number of money units for the remuneration of current workers, whose product is the very *content* of the newly formed deposits (REF). In this respect, banks are no longer primarily characterized by their function of financial intermediary, which they now share in practice with NBFIs. In contrast with the latter, banks are the only institutions endowed with the right to accept money deposits (withdrawable on demand) from the general public and to issue legally acceptable payments within the economic system. It is precisely this function of monetary intermediation that distinguishes banks from other financial institutions in monetary circuit literature. As Rossi (1998a, p.37) points out, *“the distinguishing feature of modern banking - in contrast to non-bank financial intermediation - is to issue payments within the economy.”* Another way to apprehend banking activity is through the fundamental accounting principle known as double-entry bookkeeping. It is indeed a historical characteristic of banks, which has greatly facilitated the circulation of money-debts within the economic system: *“debts and credits are perpetually trying to get in touch with one another, and it is the business of the banker to bring them together (...) There is thus a constant circulation of debts and credits through the medium of the banker who brings them together and clears them as the debts fall due. This is the whole business of banking as it was three thousand years before Christ, and as it is today (Innes, 1913, pp.402-403)”*.

2) Double Entry Bookkeeping and Purchasing Power In A Monetary Economy Of Production

A) Do Banks Create Credit Ex Nihilo And Do They Create Purchasing Power On Their Own?

In a description of the money creation process, Post-Keynesians often explain that money is a mere liability (i.e bank deposits) that commercial banks issue on themselves. Banks are then supposed to lend those deposits (which are legally acceptedⁱⁱⁱ as money) to firms and households. Can we thus infer that banks create purchasing power ex nihilo on their own? The answer is clearly negative if we adopt the perspective of monetary circuit theory. According to the TME, banks do not create credit ex nihilo since the credit granted by banks to firms to finance production has its ultimate origin in the credit granted by workers to banks, *at the very moment current wages are paid* (Schmitt, 1984). In this theory, the factors of production own a positive purchasing power over current output in the form of a bank deposit, following the payment of wages (ibid). This description of the way factors of production acquire a positive purchasing power over

economic output holds true even when firms try to circumvent bank intermediation by financing production out of their own cash flows (Gnos, 2003) or on capital markets. Schmitt (1984, 1996) has thoroughly analysed the way bank money intervenes in the monetary circuit by observing that, strictly speaking, banks do not start to issue the deposits that they subsequently lend to firms. On the contrary, as the old saying goes, “*loans make deposits*”(Withers, 1909). In fact, when they create money, banks debit and credit accounts with purely numerical units (Cencini, 1997, pp. 273-4). The distinction between ex nihilo money creation and double-entry bookkeeping (i.e the inner logic of monetary circuit theory) has some far-reaching implications. Being composed of purely numerical units, bank money can never be the actual object (or content) of households’ income. According to the TME, households are fundamentally paid in real goods and services (REF). Of course, this is necessarily the case in the reflux-stage of the circuit of wages since firms have to sell goods to households in order to repay bank loans. Nonetheless, this is also the case in the first stage of the circuit. In the real world, households do not obtain goods physically when they are paid in money units^{iv}. However, at the very moment wages are paid, households immediately save their income in the form of bank deposits defined as a stock of income corresponding to a drawing right over a fraction of economic output (Schmitt 1984, pp. 484-92) until they finally spend it on buying goods and services in the market. Therefore, the very content of households’ income is made of the goods that firms and workers (taken together) have themselves produced in the production process (REF).

B) Banks and Firms Participate Together In the Same Macroeconomic Reality

As Lavoie (1984, p.774) puts it, “[a]ny production in a modern or in an “entrepreneur” economy is of a *monetary nature*’. When banks grant new loans that take the form of flows of credit, “[*t]he additional debts of banks are issued and used to accept and pay for additional offer contracts of producers and workers*” (Davidson 1988, p. 164). More than twenty years ago, Marc Lavoie (1984, p.774) clearly understood the double-sided nature of income formation and the role of double-entry bookkeeping in this purely macroeconomic process: “[*t]hese flows of credit then reappear as deposits on the liability side of the balance sheet of banks when firms use these loans to remunerate their factors of production*”. In the Schmitt school, the emphasis on double entry bookkeeping in the process of money creation has successfully enabled the conceptual integration of money and output, which demonstrates the fact that banks and firms participate indeed in the same macroeconomic reality. “Money can be seen as the organic result of two intimately related actions (or flows): (1) creation, on the monetary side, of the numerical form of payment (2) production, on the real side, of physical output [...] by firms and workers taken together (Rossi, 2001, p.5, emphasis added)”. The emphasis is mainly on the macroeconomic structure of the economic system in which “*the monetary sector and the real sector operate concomitantly to determine the macroeconomic magnitude par excellence: money-income*” (Cencini, 1997, pp. 273-4.). The role of banks, firms and wage earners are therefore clearly analyzed in monetary circuit theory in the light of a holistic macroeconomic structure (Cencini, 1997, p.276), which is logically independent of microeconomic theory (Cencini, 2003).

C) Is An Unidentifiable Leakage From Banks To Nbfis Possible?

According to the inner logic of monetary circuit theory, bank loans make deposits (Withers, 1909) but '[t]hese newly created deposits must be held *somewhere in the economy*, willingly or unwillingly, and the increased holdings count as saving, voluntary or involuntary' (Chick 1996: 13-14, emphasis added). Therefore, deposits cannot leave the banking system until they are destroyed by the repayment of the corresponding debts. Moreover, we believe that the recent turmoil in international financial markets can be better understood in the light of Keynes's distinction between financial and industrial circulation in the *Treatise* (1930, p.243). Keynes had foreseen that the monetary flows between the two sectors might result in a "speculative boom" wherein the financial sector could end up "*stealing resources from the industrial sector*" (ibid., p254)". The autonomous circulation of financial business deposits within the financial sphere might indeed attract additional income from the industrial sphere. However, we argue here - for purely logical and accounting reasons - that the fear of an unidentifiable leakage from banks towards NBFIs - in the process of financial disintermediation - is a contradiction in terms, even when financialization is brought into the picture. In fact, we now consider the financialization of modern economies and its possible integration in monetary circuit theory.

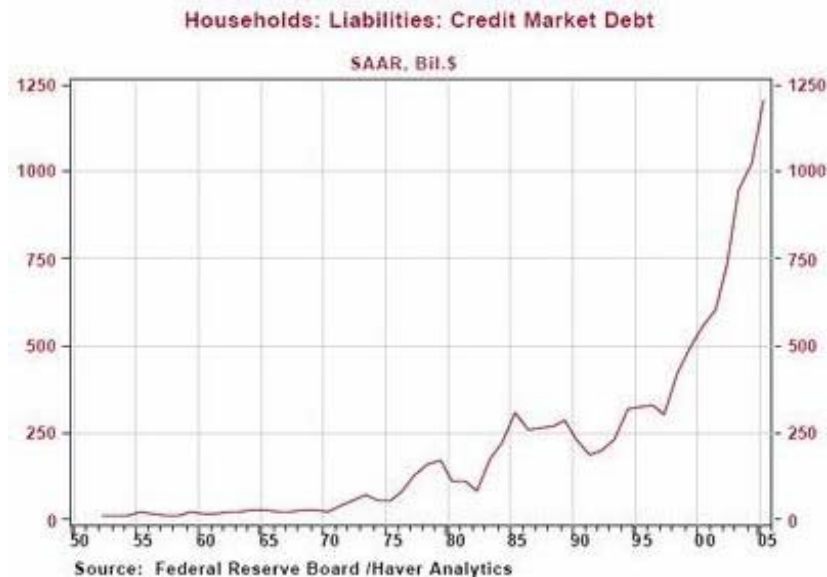
II) The Analysis of Financialization In Modern Economies

1) The Characterisation of Financialization In Modern Economies

A) What Is The Meaning of Financialization?

The term 'financialization' is used to describe a multifaceted reality that reflects complex phenomena (Epstein, 2005, p.3) such as the shift towards the maximisation of 'shareholder value' in corporate governance mechanisms, the growing dominance of capital and financial markets over the traditional banking sector; the increasing political and economic power of the owners of financial assets (sometimes called the 'rentier class'), the spectacular growth of trading and innovation on financial markets and finally, a general pattern of accumulation in which profit-making occurs increasingly through financial channels (Krippner, 2004, p.14). All these elements arguably capture some aspects of financialization that nevertheless needs to be defined in a broader sense, according to us. We endorse here the following definition used by Epstein (ibid) encompassing all the previously mentioned aspects: "*financialization means the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies.*" According to many economists, the process of financialization – understood in a broad sense – is deeply rooted in the international political economy of our time since it has considerably reshaped the balance of power between public monetary institutions (such as central banks) and the most influential private operators taking the form of global-spanning financial conglomerates and acting as powerful individual investors on financial markets (Dombrowski, 1998, p.1)"

B) The Increasing Weight of Household- Debt



The graph above shows the exponential rise of household-debt over the last fifty years in the United States. In fact, this crucial macroeconomic variable started skyrocketing at the end of the 1990s. Fueled by low interest rates decided by the Fed as a result of the major shocks caused by the explosion of the Internet bubble and 9/11, *“the US consumer rushed into a frenzy of purchases of consumer goods. Encouraged by banks and the whole US financial system, he exceeded his own financing capacities and plunged since 2004 into generalized debt and into a situation not seen in the United States since the dip of the Great Depression post 1929, namely a negative saving rate* (Public Announcement GEAB N°9, November 16, 2006). Under the impulse of financialization, a large proportion of households have modified their attitude towards debt: *“now people often pay their mortgage off quickly and use it as a revolving line of credit to invest into other assets. That would have been unheard of a decade ago when the idea was to pay off the mortgage to become debt-free* (Fahrer, 2007, p.21)”. The massive securitization of household-debt has enabled the autonomous circulation of enormous amounts of liquidities within the financial sphere reminiscent of the financial business deposits singled out by Keynes in the Treatise (1930, p.243). Following this recent explosion of household-debt (Palley, 2007, p.3), the bulk of the resulting liquidities were channelled to the housing industry, which led to a sharp increase in house prices (and arguably to the subprime crisis), which certainly calls for a renewed reflection on endogenous finance (Palley, ???).

C) The Shifting Function of Portfolio- Manager And The Decreasing Share of Bank Credit

The exponential rise of financial and capital markets worldwide^v is characterized by massive deregulation trends, sophisticated financial innovations, financial disintermediation and the resulting decreasing share of bank credit in the financing of firms. Fama (1980, p.44) once emphasized the function of banks as portfolio managers

in the *Journal of Monetary Economics*: “the concern with banks in macroeconomics centers on their role as portfolio managers, whereby they purchase securities from individuals and firms (and a loan is, after all, just a purchase of securities), which they then offer as portfolio holdings (deposits) to other individuals and firms”. This central function has been thoroughly described in mainstream but also in post-Keynesian literature with the recent revival of Keynes’s liquidity preference applied to banks (Le Héron, 2001). We argue, however, that it is no longer possible to define banks exclusively with regard to this sole function of portfolio-manager. As a matter of fact, this role, once confined to commercial banks, has been partly transferred, in the process of financialization, to other NBFIs operating on international capital markets. In the economic system taken as a whole, the transfer of this function accounts for substantial monetary flows that need to be captured within a coherent macroeconomic stock-flow framework.

2) The Changing Nature Of Finance In The Context Of Bank Disintermediation

A) Securitization and Financial Engineering

Under the broad discipline of financial engineering, securitization is the process of creating a new financial instrument by combining other financial assets and then marketing them to investors: “banks used to make loans to borrowers whose credit-worthiness they had carefully evaluated and then keep the loans on their books until they were paid off. Today, big banks are almost credit intermediaries. They make loans, bundle them together, and sell securities that are claims not on individual loans but on the bundle of loans (Leijonhufvud, 2007, p.2). The principal and interest of the newly created securities are derived from the cash flows generated by a pool of assets acting as collaterals. At the end of 2005, securitized assets accounted for an estimated total aggregate outstanding of \$8.06 trillion according to the Bond Market Association (REF). Furthermore, securitization in modern finance often goes hand in hand with credit-risk transfer: “credit intermediation has been vastly facilitated by the proliferation of complex risk transfer instruments [...]. One consequence is that a growing number of banks have been shifting to “originate and distribute” business models, transferring risks to other investors (Malcolm Knight, 2007)”. Financial engineering can thus be seen as a set of practices aimed both at sophisticated portfolio-management and effective credit-risk transfer. For instance, the recent and controversial subprime mortgage-backed securities consisted in the securitization of mortgages loans collected in tailor-made portfolios and placed in *ad hoc* independent legal bodies called structured investment vehicles or special purpose entities.

B) Financial Disintermediation

Today, productive activities are often financed with the help of new financial instruments without drawing on credit lines and using traditional bank loans. Financial disintermediation refers (1) to consumers (firms and households) investing directly in securities rather than leaving their money under the form of bank deposits withdrawable on demand, then (2) to borrowers obtaining financial resources in capital markets rather than through banks. It is said that the financial function of banks is partly transferred to capital markets in this new scheme but, instead of altering the inner logic of monetary

circuit theory, we argue that the structure of modern finance has merely been extended and complexified with the addition of numerous financial institutions *bearing credit risk in lieu of commercial banks* and acting as sophisticated and sometimes unidentifiable middlemen in the realm of the opaque world of capital markets. A fundamental shift characterizing financialization is the increasing role of financial markets in the process of financial intermediation. Banks have ceased to fund the loans^{vi} that they traditionally granted to their customers (in accordance *ex post facto* with their reserve and/or capital requirements). Instead, they simply originate the loans and quickly shift them off their balance sheet (through the instantaneous process of double-entry bookkeeping) by packaging them into sophisticated securities and distributing them to investors: “[b]anks have designed ingenious but dangerous ways of shifting trillions of dollars of credit risk off their balance sheets and into the hands of unsophisticated foreign investors, hedge and pension fund managers who gorged on high-yield debt instruments they didn't understand and financial engineers who built towers of "securitized" debt with math models that were fundamentally flawed (Markman, 2007)^{vii}. Paradoxically, those massive securitization operations entailed by credit-risk transfer have not undermined the extent of securities investments by banks that continue to be involved in risky asset-management activities (Malcolm Knight, 2007)”. There is thus a conceptual necessity to deal with an increasingly blurred distinction between banks and NBFIs: “*there has been an important trend for dissolution of functional boundaries, particularly between banking and securities activities. This has led to the creation of increasingly complex institutions, which integrate both types of activities* (Griffith Jones, p.23)”.

III) An Attempt To Integrate This Global Evolution In A Macroeconomic Stock-Flow Framework: Towards A Redefinition of Karl Polanyi's Haute Finance

1) Polanyi's Original Concept of Haute Finance : A Historical Perspective

Haute finance in Polanyi's theoretical framework (2001 [1944]) was a *sui generis* institution of the end of the nineteenth and the beginning of the twentieth century that functioned at the interface between the political and the economic organizations of the world. Independent of single governments, regardless of their geopolitical influence, the *haute finance* sector was nevertheless interacting with all; *haute finance* was arguably the most complex institutions in the history of mankind (ibid, p.11). The functional motive of *haute finance* was gain: “*nineteenth-century civilization [...] chose to base itself on a motive only rarely acknowledged as valid in the history of human societies, and certainly never before raised to the level of justification of action and behaviour in everyday life, namely, gain* (ibid, p.31)”. Moreover, the very existence of *haute finance* entailed a subtle dialectic with governments, whose end was political power and conquest. The global spread of markets was associated with “*a phenomenon unheard of in the annals of Western civilization, namely, a hundred years' peace—1815-1914* (Polanyi, 1944, pp.9-11)”. The first half of this period rested primarily on political mechanisms. In its second half^{viii}, however, the peace came to rely increasingly on a “*mysterious institution (...) [that] functioned as the main link between the political and economic organization of the world in this period* (ibid).” Although its leading members “*had made their fortunes in the financing of wars [...] and had no objection to any number of minor, short, or localized wars [...] their business would be impaired if a general war between the Great*

Powers should interfere with the monetary foundations of the system (ibid)". Hence, from a historical and geopolitical perspective, despite its *raison d'être* based on profit-accumulation, the institutionalization of self-interest and the political legitimation of financial gain by the rentier class, *haute finance* nevertheless rested on a curious paradox: its continuous existence was ensured by the safeguarding of world peace.

2) The Modern Definition of *Haute Finance*

A) *Haute Finance* as A Functional Economic Principle That Pertains To Modern Economies

For Polanyi, industrial capitalism was a unique mode of economic organization in human history in elevating gain to a fundamental principle. We argue that this very feature of industrial capitalism (the central role of gain as a functional and institutionalized economic principle in the world economic system) now applies to a fuller extent to financial capitalism^{ix}. Therefore, we argue that there is a need to define *haute finance* anew as an independent conceptual entity in our economic system and therefore as a new macroeconomic sector *per se* in the LG framework. Dumenil and Lévy (2005, p.17) have argued that, in modern economies, "*the term 'finance' itself refers to a framework of institutions interlocked in a complex network [...]*". In fact, it is sometimes argued that this term can hardly be used as a 'scientific concept' despite the obvious conceptual convergences found in the literature (ibid, p.21). As a matter of fact, a very high level of complexity characterizes modern finance^x. However, contemporary monetary macroeconomists are not always at ease with the existence of such a complex and ill-defined entity when it comes to the conceptual integration of its macroeconomic consequences. "*There is to date no consensus on the appropriate definition of financialization, never mind agreement as to the logic or laws of motion – or even the existence – of a new system of rentier or finance capitalism* (Crotty, 2007, p.85)". Due to the lack of a single and consensual definition, we believe that the corresponding macroeconomic sector that we wish to define can only be the result of a methodological choice deeply rooted in the theory of monetary circuit that is outside mainstream theory^{xi}.

The term 'rentier' is sometimes used in reference to economic agents who derive all their income from the ownership of financial assets. Keynes (REF) once defined the famous 'rentier class' as a class of functionless investors. Although this popular definition clearly conveys the idea of a purely passive role played by these economic agents (the rentier class), we nonetheless agree with Epstein and Jayadev (2005, p.48) who argue that the process of financialization in modern economies is indeed a very *active* one. Therefore, the corresponding macroeconomic sector needs to be defined *positively* with regard to an unambiguous function. Hence, we opt here for a clear-cut methodological choice consisting in the introduction of a new macroeconomic sector as well as a broad accounting category under the *haute finance* label in the LG stock-flow framework. This is a major step towards the elaboration of a coherent theory of monetary circuit that captures the way "an industrial capitalist economy works as an *organic whole* (Lavoie & Godley, 2006)." This methodological choice, albeit very ambitious, will indeed play a key theoretical role in the enhancement of our understanding of the global evolution commonly referred to as 'the financialization of modern economies'.

In line with the institutionalized economic principle governing the very existence of *haute finance* identified last century by Polanyi, we put forward a general (and hopefully consensual) definition of the macroeconomic function performed by the *haute finance* sector, which is simply *to generate profits derived from financial market activity*. This definition nevertheless requires further clarification with regard to the underlying meaning of financial profits. Schmitt (1984, p.288) has argued that, from a macroeconomic perspective, the profits of non-financial corporations (NFCs hereafter) are self-contained in wages in the national income. This proposition stems from the statement by Keynes (1936, pp. 213-4) according to which labour is the sole factor of production. In his reinterpretation of Keynesian monetary theory, Schmitt redefines profits as income having been “captured” in the production process (and not additional incomes merely added to wages). Profits come into existence when output is sold at a price that exceeds the cost-factor that is to say wages (ibid). However, in our analysis, it must be pointed out that the financial profits (or gains) generated by *haute finance* are purely microeconomic and should therefore be distinguished from the profits of productive firms. Whether or not *haute finance* is in a position to attract deposits from other macroeconomic sectors is a very different question (albeit crucial) but it seems almost premature at this stage^{xii}. However, one might wonder how we can possibly derive the theoretical existence of a new macroeconomic sector from the mere observation of a wide range of purely microeconomic profit-seekers operating on financial markets and characterized by increasingly sophisticated individualistic optimizing behaviour? We argue that the answer to this puzzling question can only be the outcome of the critical assessment of the methodology adopted by mainstream economics.

B) Haute Finance: A Concept In Sharp Contrast With Mainstream Theory

In mainstream economics, “[...] models abstract heavily from reality. [...] The existence of equilibrium in turn requires the prior assumption that all agents within the model display the character traits of a ‘representative individual’ who is concerned only about deriving personal maximum gain. This is standard characterization of agential behavior within the economic worldview but it contains precious few insights into concrete economic practices (Watson, p.65)”. We agree with the existence of the personal gain motive as a defining characteristic of financial capitalism. However, we question the methodology of mainstream economics with its ‘representative individual agent’ and decide instead to define gain as an abstract and functional motive of the *haute finance* sector rather than a sacralized individual characteristic that governs the optimizing behavior under constraints of economic agents under all circumstances. In fact, one might wonder how we might reconcile the existence of gain as a defining characteristic of financial capitalism with the methodological rejection of neoclassical individualistic optimizing behaviour. We suggest borrowing an historical example by referring to the famous alleged words “*Enrichissez vous*” by Guizot, Louis Philippe’s Prime Minister, aimed at the French *bourgeoisie* class in 1848 (REF). The holistic meaning of gain is understood insofar as it is viewed as the functional characteristic of a social group. Its subsequent conceptualization in macroeconomic terms is performed by drawing a parallel between the French *bourgeoisie* - of the nineteenth century - and *haute finance* - in the twenty-first century -.

Furthermore, we need to acknowledge the limitations of the ability of so-called rational economic agents to predict future prices on financial markets. In spite of the impressive mathematical arsenal at the disposal of mainstream economists (REF KEYNES), the truth is that *“it has become increasingly difficult to know who the ultimate holders of risk are and how the prices of specific asset classes will evolve going forward (Malcolm Knight, 2007)”*. Keynes himself once recognized *“that allowances must be made for the interactions among the independent variables of his analysis. Changes in one variable can lead to changes in other variables, and the full effects of any initial change depend on these interactions. The complexity of these interrelations means that the analysis of changes over time cannot be adequately handled by mathematical equations (Asimakopulos, 1991)”*. A fundamental error of mainstream economics was to derive all economic analysis from a purely individualistic behavior - through the aggregation of some postulated and sophisticated utility functions - therefore confining its validity to mere microeconomic theory (Graziani, 2003, p.18). However, the ontological nature of macroeconomics requires a distinctive mindset in order to cast light on the holistic dimension of the economic system and explain its functional interdependencies (Arestis, 1996, p.116): *“[t]he starting point for a construction of a macroeconomic model can only be the identification of the social groups present in the community, followed by the definition of the conditions necessary for their reproduction and perpetuation over time (Graziani, 2003, p.19)”*. Despite the limitations of mathematical modelling, we nonetheless believe that it is indeed possible to build solid macroeconomic foundations for an explanatory framework resting on logical principles: *“we must exploit logic so far as we possibly can. Every purchase implies a sale: every money flow comes from somewhere and goes somewhere [...]. The aim here is to show how logic can help to organize information in a way that enables us to learn as much from it as possible. That is what we mean by macroeconomic theory [...] (Godley and Cripps, 1983)”*.

C) The Case For A Supranational *Haute Finance* Sector

The financial and technological innovations in the past few decades have globalized and shrunk the international financial system. The postulated supranational nature of *haute finance* in our model derives from the increasingly complex restructuring of global financial portfolios (Malcolm Knight, 2007)”. This supranational dimension and the blurring of the legal and conceptual distinction between banks and NBFIs (sometimes purposely circumvented for regulatory motives) can be viewed as overlapping phenomena: *“banks have created separate entities known as conduits’ or special investments vehicles’ (SIVs), usually located offshore in Cayman islands or some such place where regulators are not much in evidence (Leijonhufvud, 2007, p.7)”*. Paradoxically, everytime national regulators aim to safeguard the legal distinction between banks and NBFIs, the supranational nature of *haute finance* is reinforced: *“in those countries where barriers remain [between banks and NBFIs], banks are however free to combine banking and securities abroad, and are increasingly finding ways around the law in their home market (Griffith Jones, p.23)”*. The supranational nature of *haute finance* is characterized by the sheer difficulty to regulate this sector on a mere domestic scale. This is illustrated by the following description of the global interconnectedness of banks’ financial liabilities^{xiii} in the light of the complex mechanisms that triggered the 2007 subprime crisis: *“a German bank in Leipzig, for example, holds an (indirect) claim on some poor fellow in California – half a world away – who had borrowed up to the hilt at a very low ‘starter rate’ and who could not possibly meet his mortgage payments when the rate was raised to market level, but lived on the vain hope that the value of the house would continue to appreciate indefinitely*

(Leijonhufvud, 2007, p.3)”. With numerous actors dispersed in many different countries and interlinked through innovative, complex and sometimes opaque credit-risk transfer mechanisms, we argue that no single government (or central bank) was able, yet alone, to exercise sufficient power to impact effectively on the course of actions that led to this global crisis. Hereafter, we try to justify our case for a supranational^{xiv} modern *haute finance* sector with the following description of the globalisation trends in the US securities market.

The Globalisation Trends In Investment Activities: The Example of US Securities



Source: http://www.sifma.org/research/statistics/key_industry_trends.html

The investment activity in foreign securities by Americans^{xv} has increased at an incredibly fast pace over the last three decades. From 1980 to today, U.S. gross activity (purchases and sales) in foreign securities grew dramatically (140-fold!) from \$53 billion to almost \$7.4 trillion in 2004. Foreign gross activity in U.S. securities has also grown exponentially (166-fold!) from \$198 billion in 1980 to \$32.95 trillion in 2004.

3) Haute Finance As A New Macroeconomic Sector

Haute finance is viewed in our analysis as a conceptual entity, defined as a supranational macroeconomic sector^{xvi} constantly interacting with the other domestic macroeconomic sectors in the LG model (households, banks, firms, central banks and the government sector). Firstly, the *haute finance* sector is made of all NBFIs (regardless of their nationality), operating on international markets, such as insurance and finance companies, investment banks, securitization firms, mutual funds, private pension funds and public sovereign funds^{xvii}. However, those NBFIs are not always distinguished from traditional banks in the literature since financial innovation is constantly blurring the distinction between them. NBFIs^{xviii} carry out financing activities but their resources (i.e: their liabilities) are never *directly* obtained from the savers under the form of perfectly liquid debt (i.e deposits withdrawable on demand). Instead, these institutions mobilise the public savings (by issuing tradable securities) for rendering other financial services including investment. All such institutions become financial intermediaries when they engage in lending activities.

Secondly, we need to include in *haute finance* the asset-management activities carried out by traditional banks that correspond *neither* to monetary intermediation in the TME (Rossi, 1998) *nor* to financial intermediation in the sense of the transfer of perfectly liquid resources (i.e withdrawable on demand) obtained directly from savers and supplied to deficit-spending units^{xix}. As we previously saw, there exists a fundamental distinction between monetary and financial intermediation; the former being performed when banks issue payments in the economy and the latter when they bridge the gap between deficit-spending units and saving units. Banks often act as financial intermediaries, of course, but they also supply additional financial services (such as asset-management), which can alternatively be provided by NBFIs. As a consequence, international^{xx} banking activities that pertain neither to monetary intermediation (when banks issue legally acceptable payments drawn on deposit accounts) nor to pure financial intermediation can legitimately be included in the *haute finance* sector.

Thirdly, certain activities of NFCs paradoxically need to be integrated in the *haute finance* sector. In fact, under the impulse of the new shareholder value maximization philosophy triggered by the 1980s' takeover movement and the subsequent "portfolio view of the firm" (Crotty, p.90, 2005), NFCs have been actively involved in financial portfolio-investment^{xxi} independently of their real activities such as domestic productive investments and outward FDI (ibid., p105). Along with traditional banks, NFCs now engage in securitization and asset-management activities (both internally and externally). We argue that those activities should be included in *haute finance* regardless of the legal identity of the entity managing the financial assets in its own books. The challenge lies in the statistical integration of this component of *haute finance*, which will be of utmost importance in our endeavor to extend the LG framework, if we are to obtain one day a set of meaningful and computable data in macro-econometric terms.

4) The Addition of Haute Finance In The Premises of The Lavoie-Godley Model

How can we integrate financialization in a coherent stock-framework? Our perspective in this chapter is the modern theory of monetary circuits. Therefore, we focus on the implications of financialization on the very structure of the macroeconomic stock-flow framework put forward by LG that offers a coherent circuitist vision of endogenous money and sets proper accounting foundations for monetary macroeconomics that does *not* leave financial phenomena in the dark (Denizet, 1969) and ensures that there is no black hole (Godley, 1996, p7) in the economic system. Credit flows and money stocks are reconciled in a coherent framework enabling macroeconomists to work on comprehensive accounts thereby providing an exhaustive description of the economic process. As a full-fledged economic sector, *haute finance* can be integrated in the balance sheet and the transaction-flow matrices of the LG model. The additional transaction-flows are simply the monetary *quid pro quo* of the securities and the financial services exchanged between the existing macroeconomic sectors and the newly defined *haute finance* sector. Those financial services generate both gains and losses, which are the aggregate of: 1) the interests, dividends and other contractual payments received by all agents of the different macroeconomic sectors; 2) the gains/losses resulting from the evolution of financial markets; 3) minus the devalorisation of economic agents' financial portfolio resulting from inflation; 4) minus

the management and administrative costs incurred by those financial services. Let us clear some possible misunderstandings at this stage; we only provide here the premisses of an extended LG framework including *haute finance* but this model is not yet fully operational. Regardless of the complexity and the quality of the subsequent modelling techniques employed, the precise quantification of the financial flows originating from *haute finance* will necessarily involve a clear understanding of the factors regulating modern financial markets that is to say “*little more than their own pricing dynamics*” (Watson, 2007, p.97). Even with the assumption of a non-ergodic world (Davidson), the analysis of those increasingly complex pricing dynamics is beyond the scope of this chapter.

➤ **Table 1** Aggregate balance sheet of the macroeconomic sectors

	<u>Households</u>	<u>Firms</u>	<u>Banks</u>	<u>Gov't</u>	<u>HF</u>	<u>Total</u>
1) Bank deposits	+D		-D			0
2) Bank loans	- L _{hb}	- L _{fb}	+L _b			0
3) HF loans	-L _{hf}	-L _{hf}	-L _{bhf}	-L _g _{hf}	+L _{hf}	0
4) HF securities	+S _{hf}	+S _{hf}	+S _{bhf}	+S _g _{hf}	- S _{hf}	0
5) Gov't bills	+G _h	+G _f	+G _b	- G	+G _{hf}	0
6) Capital goods		+Pk				+Pk
7) Equities	+pe.E _h	- pe.E	+pe.E _b	+pe.E _g	+pe.E _{hf}	0

Notes: pe stands for the unit price of equity

Positive figures denote assets, while negative ones denote liabilities

All sectors buy equities, government bills and *haute finance* securities.

Banks grant loans to firms in order to finance production (i.e money is endogenous) and also to households but we assume that only the latter save a significant share of their income in the form of bank deposits.

➤ **Table 2** A simplified current transactions matrix

	<u>Households</u>	<u>Firms (current)</u>	<u>Firms (capital)</u>	<u>Banks</u>	<u>Gov't</u>	<u>HF</u>	Σ
<u>Consumption</u>	- C	+C					0
<u>Gov't expenditure</u>		+G			-G		0
<u>Investment in fixed capital</u>		+ p. Δ K	- p. Δ K				0
<u>Wages</u>	+W	-W					0
<u>Taxes</u>	-Tw	-Tf		- Tb	+T	-Thf	0
<u>Interests on bank loans</u>	-iL _(t-1)	-iL _{f(t-1)}		+iL _{t-1}			0
<u>Interests on HF securities</u>	+iSh _(t-1)	+iSf _(t-1)		+iSb _(t-1)	+iSg _(t-1)	-iSt-1	0
<u>Interests on HF loans</u>	-iSh _(t-1)	-iSf _(t-1)		-iSb _(t-1)	-iSg _(t-1)	+ iSt-1	0
<u>Interests on gov't bills</u>	+iGh _(t-1) .	+iGf _(t-1) .		+iGb _(t-1) .	-iG _(t-1)	+iGhf _(t-1) .	0
<u>Interests on bank deposits</u>	+i·Bt-1			-i·Bt-1			0
<u>Dividends</u>	+Fd +Fb+ Fhf	- Fd		-Fb		-Fhf	0

* Positive figures denote sources of funds, while negative ones denote uses of funds

A good example of transaction-flows arising out of the traditional banking sector and entering the *haute finance* sector is given by credit-risk transfer enabling banks to shift credit-risk (assessed in monetary terms) off their balance sheets into the hands of investors. In the process of financial circulation, the resulting fungible securities will very likely be traded and reshaped into increasingly sophisticated instruments within *haute finance* where they will continue to circulate.

➤ **Table 3** Flows of Fund

	<u>Households</u>	<u>Firms</u>	<u>Banks</u>	<u>Gov't</u>	<u>Haute Finance</u>	<u>Total</u>
<u>Δ Bank deposits</u>	$-\Delta D$		$+\Delta D$			0
<u>Δ Bank loans</u>	$+\Delta L_b$	$+\Delta L_f$	$-\Delta L_b$			0
<u>Δ HF loans</u>	$+\Delta L_{HF}$	$+\Delta L_{fHF}$	$+\Delta L_{bHF}$	$+\Delta L_{gHF}$	$-\Delta L_{HF}$	0
<u>ΔHF securities</u>	$-\Delta S_{HF}$	$-\Delta S_{fHF}$	$-\Delta S_{bHF}$	$-\Delta S_{gHF}$	$+\Delta S_{HF}$	0
<u>Δ Gov't bills</u>	$-\Delta G_h$	$-\Delta G_f$	$-\Delta G_b$	$+\Delta G$	$-\Delta G_{hf}$	0
<u>Δ Equities</u>	$-pe\Delta E_h$	$+pe\Delta E$	$-pe\Delta E_b$	$-pe\Delta E_g$	$-pe\Delta E_{hf}$	0

Haute finance institutions issue securities and grant loans. The resulting assets and liabilities reappear in the balance sheets of the different macroeconomic sectors (Table 1). In fact, the existence of *haute finance* is assumed to be neutral at first since it does not change the totals of the different lines and columns of the table (total interests on securities equal total interests on loans). Of course, as soon as we enter dynamic analysis, this assumption will be relaxed. The “current flows” are described in Table 2. All sectors receive interest on *haute finance* securities and government bills and they pay interest on their lagged stock of *haute finance* loans. All sectors pay taxes to the government. Only households receive interest on bank deposits, income in form of wages, distributed profits of banks, firms and *haute finance* institutions and use it to consume goods and services, pay taxes and interest on their loans and buy securities. The government, in turn, receives money from taxes and uses it to buy goods from firms and pay interest on its lagged stock of debt, while firms use sales receipts to pay wages, taxes, interest on their lagged stock of loans, and dividends, retaining the rest to finance investment. Finally, banks receive interests on loans granted to firms and households that they use to pay interest on households’ deposits, taxes and dividends. As in previous LG models, every monetary flow has to “*come from somewhere and go somewhere*” (Godley 1999), and this is why all row totals are zero. Table 3 emphasizes the dynamic nature of the model with the flows of fund for each institutional sector.

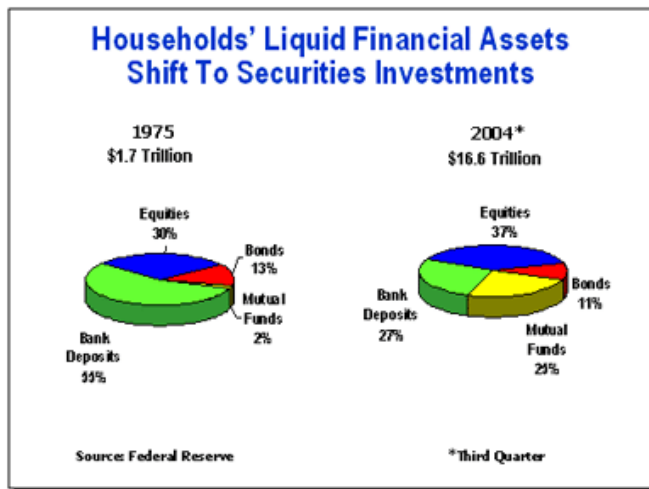
5) The Balance Sheet of Households, Firms And Banks In Our Revisited LG Model

According to Dos Santos (2007,p.5), “*most Post-Keynesians would agree that the size and the desired composition of the balance sheets of the various institutional sectors [...] determine (short period) equilibrium asset prices which, in turn, crucially affect real [macroeconomic] variables*”. Drawing on this idea, we now consider the structure of the balance sheet of the different macroeconomic sectors including assets and liabilities originating from *haute finance*.

A) Balance Sheet of Households

ASSETS
Securities owned by households purchased from firms (ex: equities, corporate bonds...)
Securities owned by households purchased from banks (deposit certificates)
Securities owned by households purchased from <i>haute finance</i> (ex: share in mutual funds)
Cash reserves supplied by <i>haute finance</i> (ex: contractual payments by NBFIs)
Funds lent by <i>haute finance</i> (ex: loans granted by NBFIs)
Securities owned by households purchased from the government (ex: treasury bonds)
Bank deposits owned by households (if positive)
Real assets owned by households
LIABILITIES
Outstanding debt (bank loans and <i>haute finance</i> loans)

In 2004, 73 % of Americans' liquid financial assets were invested in securities such as stocks, bonds, and mutual funds, with the balance in bank deposits and certificates of deposit, according to the Fed data. In 1975, more than half (55%) of Americans' assets were in bank deposits. The total value of assets grew from \$1.7 trillion at year-end 1975 to a peak of \$19.3 trillion in 2000 (an 11-fold increase!), before falling back to \$16.6 trillion in 2004. In our renewed LG framework, we argue that mutual funds originate directly from the newly defined *haute finance* sector.



Source: <http://www.federalreserve.gov/releases/Z1/>

B) Balance Sheet of Firms

ASSETS
Securities owned by firms purchased from other firms (equities, corporate bonds...)
Securities owned by firms purchased from haute finance (ex: share in mutual funds)
Cash reserves supplied by haute finance (contractual payments made by NBFIs)
Funds lent by haute finance (ex: venture capital funds)
Securities owned by firms purchased to banks (ex: certificate of deposits)
Securities owned by households purchased from the government (ex: treasury bonds)
Bank deposits owned by firms (if positive)
Cash reserves as a result of internal liquidity management and retained profits
Real assets owned by firms
LIABILITIES
Own equity funds and capital reserves
Outstanding debt (bank loans, haute finance loans, inter-firm liability and tax liability)

C) Balance Sheet of Banks

ASSETS
Securities owned by banks purchased from other banks (ex: certificates of deposit)
Securities owned by banks purchased from firms (equities, corporate bonds...)
Securities owned by banks purchased from haute finance (ex: share in mutual funds)
Financial services purchased from haute finance (ex: credit-risk transfer)
Cash reserves supplied by haute finance (ex: contractual payments made by NBFIs)
Funds lent by haute finance (special loans granted by NBFIs)
Securities owned by banks purchased from other banks
Securities owned by banks purchased from the government (ex: treasury bonds)
Loans granted to firms, households and other banks
Cash reserves as a result of internal liquidity management and retained profits
Real assets owned by banks
LIABILITIES
Own equity funds and capital reserves
Outstanding debt (deposits, haute finance loans, interbank liability and tax liability)

Conclusion

We have aimed in this chapter to cast light on the current process of financialization in the framework of monetary circuit theory. In the light of Karl Polanyi's groundbreaking work last century on *haute finance*, this renewed endeavour has led us to define a new macroeconomic sector that was integrated into the premises of Lavoie-Godley model. Further elaboration on the *haute finance* sector will certainly give rise to major statistical difficulties that stem from its postulated supranational nature. In an open-economy framework, this methodological assumption will require some very complex accounting procedures. For example, the existence of this new macro-accounting entity implies that the financial services supplied by commercial banks that do not fit into the categories of monetary and financial intermediation (as defined in the TME) be included in *haute finance* and withdrawn from the traditional domestic banking sector in national statistics. Moreover, the creation of a supranational *haute finance* sector entails the aggregation of national statistics on NBFIs (and on other selected international banking activities) that will be excluded from our revisited definition of the domestic banking sector. Finally, data inadequacies might impede our conceptual attempt to include in *haute finance* all the financial activities of multinational NFCs (Crotty, 2005, p.106). Despite all these reservations, we are convinced that the recognition of *haute finance* as a full-fledged macroeconomic sector is now a conceptual necessity. We sincerely hope that the joint-efforts of researchers in the future will contribute to its successful integration into a fully

operational model that will better our understanding of the workings of modern economies.

Notes

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- i Hedge funds now account for half the trading on the New York and London stock exchanges (Anderson, 2006).
- ii This macroeconomic operation concomitantly involves banks, households and firms (Gnos, 1985).
- iii The origin of the acceptability of bank deposits as money by economic agents (their 'moneyness') is a source of contention between Post-Keynesians and circuitists. While the former seem to have adopted, along with leading monetary practitioners such as Goodhart (1989 [1975], p.111) or Aglietta & Orléan (2002) the convention-based analysis derived from the view that modern banking systems function on the bedrock of the confidence, the latter try to explain the objective purchasing power of money (Schmitt, 1988, p.89) through the conceptual integration of money and output.
- iv The payment of wages is seen as an instantaneous and circular flow of money that gives rise to the formation of a stock of money-income (Schmitt, 1984, Rossi, 1998, 2006, Gnos, 1998, 2005)
- v Approximately \$2.5 trillion are exchanged each day on the foreign exchange market (BIS, 2005). In comparison, annual world trade in 2004 was \$9 trillion (World Trade Organization, *World Trade Report*, 2005, p. 6, see also www.wto.org/english/res_e/booksp_e/anrep_e/world_trade_report05_e.pdf) or 22 percent of the total value of the world's \$40.8 trillion GDP for that year ("Total GDP," 15 July 2005, World Bank Data and Statistics, at <http://siteresources.worldbank.org/DATASTATISTICS/Resources/GDP.pdf>)
- vi Following Le Bourva (1962), we dismiss the idea that money creation is dependent on a pre-existing monetary base. Instead, we endorse the theory of the credit-divider, which puts the emphasis on the endogenous nature of bank money characterised by the leading role of the demand for bank-credit by firms (in order to finance production) and the subsequent refinancing of commercial banks by the central bank whose behaviour is mainly accommodating and defensive (Moore, 1988).
- vii Markman, The Credit Crisis Could Be Just Beginning, www.thestreet.com, 2007
- viii According to Arestis and Basu ("Financial Globalization: Some Conceptual Problems", 2003), this period (the second half of Polanyi's Hundred year peace) was "[t]he first age of unregulated financial globalization that spans over the period from the 1870s to 1913 when London arguably acted as the center of financial activity".
- ix Not all financial services serve the direct and primary purpose of gain. Other important functions exist (e.g: hedging, insurance, risk-sharing, capital raising and funding of real-world projects, credit-rating, debt restructuring etc...). However, from a holistic perspective, the essence of this wide variety of financial services can only be understood in the light of a broader financial profit motive. The necessity to conceptualize financial phenomena in the monetary circuit theory justifies the introduction in the LG framework of *haute finance* defined as a full-fledged macroeconomic sector and a broad accounting category with regard to its postulated functional *raison d'être*: gain (i.e the realization of profits on financial markets).
- x This is a fascinating discussion beyond the scope of this paper but the level of complexity of the present world financial system is probably much higher than Polanyi's *haute finance*. With regard to the existing balance of power in the international political economy, we argue that the conceptualization of a modern *haute finance* sector is indeed of utmost importance today.
- xi Mainstream theory is often characterized by its repetitive and questionable emphasis on the maximization of utility functions by a representative individual agent.

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- xii One should not extrapolate at the exploratory stage; if the capture by *haute finance* of incomes from other sectors is to be scientifically singled out one day by macroeconomists, it will only be the outcome of a rigorous modelling process within a stock-flow coherent framework.
- xiii The reason why the subprime crisis (that originated on a specific segment in the USA) propagated so quickly to the rest of the world is precisely because of those interconnected *haute finance* liabilities in the balance sheet of banks worldwide.
- xiv We have in mind the following meaning for the term supranational: “*extending beyond or transcending established borders or spheres of influence held by separate nations*” (American Heritage Dictionary, 2007).
- xv National statistics in other countries would also show massive cross-border trends in financial markets and therefore call for the recognition of *haute finance* as a *supranational* sector (see previous footnote).
- xvi The definition is conceptual and holds regardless of the country of incorporation of these NBFIs. From a legal point of view, these institutions can be incorporated in any country without affecting their postulated supranational nature from a *methodological* and *macroeconomic* point of view. Paradoxically, we include the purely financial activities of multinational NFCs in the *haute finance* sector.
- xvii One might be tempted to emphasize the geopolitical dimension of sovereign funds to justify their inclusion in the government sector. However, for obvious reasons, we decide to include sovereign funds in the *haute finance* sector in our revisited LG framework.
- xviii NBFIs act as suppliers of loans and credit facilities. However they are not allowed to take bank deposits from the general public and have to find other means of funding their operations such as issuing debt instruments.
- xix We use the expression “to bridge the gap between deficit-spending units and saving units” to characterize financial intermediation. However, we have shown in our description of double-entry bookkeeping in monetary circuit theory that banks, in reality, do *not* create unilaterally the deposits that they lend to households or firms.
- xx The integration of banks’ cross-border activities into *haute finance* provides them with a supranational dimension by making them conceptually independent of any single government. This is not a denial of the national rootedness of banks from a statistical, legal and regulatory perspective. To a very large extent, governments and banking supervision systems still continue to determine the activities of commercial banks and therefore justify their inclusion in national financial statistics. However, the postulated supranational nature of *haute finance* is a methodological choice that stems from the observation of the massive globalisation trends in the financial sector over the last few decades. In fact, the current weight of *haute finance* questions the ability of any single government, yet alone, to exert a significant influence on its future evolution.
- xxi Multinational NFCs often open purely financial subsidiaries abroad (e.g: car makers).