

Argitis, Giorgos

Article

Veblenian and Minskian financial markets

European Journal of Economics and Economic Policies: Intervention (EJEEP)

Provided in Cooperation with:

Edward Elgar Publishing

Suggested Citation: Argitis, Giorgos (2013) : Veblenian and Minskian financial markets, European Journal of Economics and Economic Policies: Intervention (EJEEP), ISSN 2052-7772, Edward Elgar Publishing, Cheltenham, Vol. 10, Iss. 1, pp. 28-43, <https://doi.org/10.4337/ejeep.2013.01.04>

This Version is available at:

<https://hdl.handle.net/10419/277255>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by/4.0/>

Veblenian and Minskian financial markets

Giorgos Argitis*

Department of Economics, University of Athens, Greece

The purpose of this paper is to provide an exposition of Veblen's and Minsky's views on the financial markets and to explore the possibility of any common denominators. I stress that they both bring forward the importance of leverage as a path-breaking insight, as well as of liquidity and solvency in the real-world financial markets characterized by uncertainty, innovations and evolving institutions. I remark that Veblenian and Minskian financial markets are naturally and endogenously unstable, nonneutral and influence 'real' economic performance. I argue that if Veblen's institutional logic in his business enterprise system became integrated with Minsky's financial processes of creation and destruction, it could set up a realistic framework to analyse the evolution of financial markets in capitalism.

Keywords: *financial markets, Veblen, Minsky, leverage, liquidity, financial instability, financial crisis*

JEL codes: *A20, B15, B25, B52, E12, E44, G3*

1 INTRODUCTION

In recent decades, recurrent episodes of financial fragility and instability have made apparent that conventional theories and models of finance provide inadequate explanations of the nature of financial markets. The major reason is that they are unable to detect the possibility that financial markets can become fragile, unstable and prone to crisis. Furthermore, news about financial and business frauds, the flow of inaccurate financial information, manipulated asset and goods prices, over-ambitious profit projections and fragile balance sheets that compose the business and financial affairs of the real-world capitalist economies are treated as exogenous anomalies by conventional economic thinking. Nonetheless, these features of capitalist reality degrade the conventional belief that free markets are self-regulated and the preconception put forward by the efficient market hypothesis that asset prices fully reflect all information about fundamentals. In addition, these features disclose the necessity to develop a realistic alternative non-conventional framework to analyse the evolutionary nature of fragility and instability in the financial markets.

It is well known that non-conventional economics is characterised by significant diversity. But, as many scholars have pinpointed, pluralism and diversity might be a virtue, since they offer possibilities for synthesis and integration. In this sense, the examination of possible complementarities among different heterodox approaches or seminal authors is a well substantiated undertaking. Kelso/Duman (1992: 222) point out that Veblen and Minsky 'are both examples of seminal thinkers who place great importance on financial crises, as they develop a reasonable explanation of the

* The author would like to thank Marc Lavoie and an anonymous referee for their useful suggestions. Responsibility for any remaining errors rests with me alone.

connection between speculation, financial crisis and business cycles'. This paper aims to contribute to the exploration of possible common denominators in the analyses of Veblen and Minsky concerning the institutions that cause coherence, fragility and instability in the financial markets. My argument relies on the belief that the integration between Veblen's institutional analysis of finance and Minsky's financial processes of creation and destruction provides foundations for an alternative to conventional theory, a realistic and evolutionary approach to the fragility and instability of the financial markets.

With that in mind, the structure of the paper is organised as follows. Section 2 presents the major insights of Veblen's theorization of financial markets within the context of his institutional theory of the business enterprise system. My basic argument is that Veblen's corporation finance is a process of institutional adaptation, which establishes leverage, uncertainty, emulation and innovation as processes that cause debt-deflation, as well as financial fragility and instability. In section 3, I pinpoint that Minsky's financial macroeconomics contextualises an evolutionary macro-finance approach of a Schumpeterian origin, which bears out that endogenously unstable leverage structures and failed margins of safety cause fragile financial processes and unstable financial markets. In the concluding Section 4, I argue that the integration of Veblen's institutional logic with Minsky's evolutionary analysis of financial markets advances an institutional process of creation and destruction of financial flows and linkages that make capitalist financial markets naturally and endogenously fragile and unstable.

2 VEBLENIAN FINANCIAL MARKETS

Veblen deserves considerable attention to the rapidly evolving financial markets in his institutionalist theory of business enterprise, which was outlined with the *Theory of Business Enterprise* (Veblen 1904) and *Absentee Ownership: the Case of America* (Veblen 1967). In these two seminal works, Veblen examines the evolution of American capitalism as a continuing process of institutional adaptation of the business enterprise system. In his original model in *Enterprise*, despite the fact that financial markets had not yet undergone the vast development that would come about over the next decades of the twentieth century, Veblen envisages them to have a significant role.¹ Veblen's reasoning is that the financial markets form the institutional basis of his analysis of corporation finance, which, in turn, is the key adaptation mechanism of the culture of the business enterprise system that sets the pace for the evolution of capitalism.

Subsequently, to draw out the nature and the implications of the Veblenian financial markets, it is crucial to comprehend the institutional logic of Veblen's business enterprise system. Veblen's institutional logic is derived from the distinction he makes between the physical capital and the intangible or non-material capital treated by business as goodwill (Veblen 1904; 1908). The machine process and the industrial capital exert significant influence on the economic change; however, for Veblen, as Raines/Leathers (2000, 2008) and O'Hara (2000), among others, have marked out, the substantial foundation of the industrial corporation is its non-material assets. This dualism in the nature of capital led Veblen (1904) to stress the qualitative

1. Raines/Leathers (2008) describe the historical setting of Veblen's analysis of corporation finance, which helps the reader to identify the evolutionary nature of the Veblenian financial markets.

distinction between the industrial transactions and the pecuniary transactions that businessmen carry out for business ends, not for industrial ends. In *Absentee Ownership*, Veblen (1967: 83) argues that ‘the corporation’s control and direction of industry is a financial control and direction’. It is the latter that converts a corporation into a pecuniary institution that makes money and not an industrial institution that produces goods. In this sense, Mitchell (1969: 642) refers to Ayres who notes that in Veblen, the business enterprise system is demonstrated through the conflict between the ‘cultural incidence of the machine process and the cultural incidence of business enterprise’.

This cultural conflict is the foundation stone of Veblen’s institutional analysis of corporation finance. Veblen is likely to have drawn attention to corporation finance, because, arguably, he might have identified it as the institutional blender that mixes the cultural incidence of the machine process and the cultural incidence of business enterprise. Corporation finance connects the machine process and the accumulation of physical capital with the process of finance, the financial markets and the accumulation of non-material capital. This is the preconception with which Veblen thinks about the institutional roots of the cultural evolution of the business enterprise system. Moreover, it is the institutional mechanism through which the financial markets adapt to the culture of the business enterprise system. On these grounds, Dirlam (1958: 199) observes that ‘the distinguishing feature of Veblen’s general theory of the economic process is the importance he assigns to the financing of the modern corporation’.

Financial markets come to have a dual effect in Veblen’s system. They constitute the monetary vehicle that provides liquidity, in the form of credit, bonds or stocks, and stimulates change and growth in the machine process, which, in turn, causes mass production; concurrently, financial markets provide liquidity to the businessmen to carry a higher scale of industrial concentration, in order to draw out the power and control of the machine process (see Veblen 1904; 1905). As Dillard (1980) has pointed out, in Veblen’s monetary thought, investment was made to yield profits in terms of money. Credit, bonds and stocks are important tools that enable businessmen to expand their corporations and to control the markets, aiming not to maximise society’s material wellbeing, but its pecuniary wealth.

Thus, in Veblen’s system, financial markets have a pecuniary existence, not a material one. It might reasonably be argued that Veblen’s most illuminating insight about the nature of the financial markets is that finance is an ingredient of the business culture and is used by businessmen to manipulate the earning capacity and the financial structure of their firms instead of financing production in order to advance society’s welfare. Therefore, banks, financial institutions, financial structures and relations are fundamental constituents of the culture of the business enterprise system. In this sense, Veblen perceives the evolution of the business culture as the ultimate factor that endogenously causes financial instability and crisis.

To grasp the endogenous nature of Veblen’s theory of financial instability, it is important to further analyse the role of the financial markets, particularly the role of leverage, as a process of credit creation, in the cultural conflict within the business enterprise system. It has been observed by many scholars, for example Kelso/Duman (1992) and Wray (2007), that in Veblen’s system the expansion of the machine process poses a direct threat to business culture, because it reduces the capitalised putative earning capacity of the accumulated stock of equipment. This occurs since leverage stimulates new investments in the machine process, which pushes down production costs and commodity prices due to the advanced technology used in production. But the capitalised earning capacity of the corporation is the factor that

influences expectations about the corporation's goodwill and the potential to increase its financial leverage. Veblen (1904: 138–139) depicts goodwill as an identification of customary business relations, established business patents and copyrights, trademarks, reputation and processes protected by secrecy. For him these are 'immaterial goods covered by the common stock' (Veblen 1904: 145). Ganley (2004: 398) notes that goodwill might also include the 'potential for growth the firm could create for itself as a business entity'.

Veblen's insight about the link between leverage, the capitalised putative earning capacity and goodwill is fundamental to understanding the complexity of business and banks' financial structures, flows, linkages and relationships. In addition, it provides an institutional context to visualise the interrelation between fragile balance sheets, financial fraud, speculation, manipulation and financial fragility and instability. If liquidity is provided according to the capitalised goodwill of a corporation or a bank, then the manipulation of the future stream of nominal profits seems very logical to come about within the business system. The reason is that a firm with highly capitalised goodwill will be a successful and financially solvent firm, and hence will have easy access to liquidity. The evaluations of the leverage and financial structure of firms and banks are quite likely to be mistaken, because of the manipulated measures of earning capacity and goodwill. Corporations and banks might be valued as highly as possible by the financial markets, in spite of a considerable discrepancy that might exist between a corporation's putative earnings and its actual earnings.²

In this context, leverage causes two conflicting effects. It gives businessmen, who are competing for pecuniary gains, the means to steadily overinvest, especially during a business upturn. The expanded firm is in a position to negotiate a higher leverage that further increases output, and which extends prosperity and investment opportunities. In this manner, leverage tends to become a process of cumulative acceleration that increases prices of goods, nominal profits, the market (and the collateral) value of existing plants and equipment and, finally, the expected returns on new capital and the availability of liquidity (Veblen 1905). At the same time, an extensive use of leverage is likely to ultimately cause a fall in prices, as a result of the use of more efficient machine processes. This causes the devaluation of the existing assets of business firms and a fall in the expected earnings of these assets. Thus, the extensive use of leverage by competing business firms and banks aiming to extend their activities and pecuniary gains eventually causes solvency and liquidity problems. This is likely to happen because businessmen are overcapitalised and thus fail to earn sufficient revenues to fulfil their debt obligations.

The discrepancy between putative and actual earning capacity, and therefore between putative and eventual capitalization of collateral, is the factor that stimulates the endogenous process of financial fragility and instability. Leverage is the driving force that causes the above-mentioned discrepancy. An extensive use of leverage and particularly speculative leverage is a process that in due course causes insolvency that deleverages the machine process. Deleverage changes profit expectations and increases pressures for liquidation of existing real and financial assets and, thus, the possibility of generating a debt-deflation process. In this sense, the extensive use of leverage contradicts the cultural incidence of business enterprise.

2. Bolbol/Lovewell (1992) use the concept of Veblen's version of q to assess the importance of the discrepancy between the actual and the putative earning capacity in investment decisions and the manipulation of asset prices.

2.1 Emulation, speculation and endogenous financial instability

In Veblen's system, the extensive use of leverage is due to the intention of businessmen to succeed at emulation by escalating their activities and assets at the expense of their competitors. Emulation is the desire to be higher than others in the social and economic hierarchy. Successful emulation means to have liquidity and property the merit of which is measured by their monetary value rather than the productive value of the machine process. Business enterprises concentrate on liquidity and property as their symbol of power.

What is crucial in Veblen's system – and it must be highlighted – is the idea that emulation results from the efforts of businessmen to fight for distinction and reputation and not from the concern to use labour and the machine process to increase society's supply of material goods. In doing this, businessmen use predatory business practices (Cornehl 2004) and their price-setting power to manipulate profit expectations to get new credit to expand their firms, increasing the concentration in industry and their authority and prestige. In addition, emulation may induce businessmen to use leverage in order to finance conspicuous consumption rather than to finance new investment in physical assets. Therefore, emulation drives businessmen towards over-leveraging, which increases the discrepancy between putative and actual profits and gives rise to solvency and liquidity problems, ultimately causing deleveraging and the financial crisis stage of the business cycle. Therefore, according to Veblen, the origin of the unstable nature of financial markets is the culture of the business enterprise system, in particular the prestige and power that businessmen and bankers wish to hold through the process of making pecuniary profits.

Furthermore, the business culture is such that captains of industry engage in the manipulation of market perceptions and the financial market expectations regarding the corporation's earning capacity and goodwill. Veblen explicitly argues that managers are able to manipulate the capitalised financial structure of corporations. In particular he notes:

It follows ... that under these circumstances the men who have the management of such an industrial enterprise, capitalised and quotable on the market, will be able to induce the putative and actual earning-capacity, by expedients well known and approved for the purpose, partial information, as well as misinformation, sagaciously given out at a critical juncture, will go far toward producing a favourable temporary discrepancy of this kind, and so enabling the managers to buy and sell securities of the concern with advantage to themselves. (Veblen 1904: 156–157)

But the manipulation of the capitalised leverage and financial structure of corporations turns to manipulated solvency rankings. Arguably, Veblen is likely to presume that businessmen manage prices according to their debt structure in order to manipulate their expected earning capacity and leverage competence. This has a fictitious effect on the stock price of the corporation, and consequently on its leverage capacity and access to liquidity. In effect, the manipulated earnings and leverage capacity of a firm create market expectations about the solidity of its balance sheet and debt structure that cannot be fulfilled. The higher the manipulation, the higher may be the financial fragility of a corporation. Manipulation induces fragility and instability in the financial markets, because the creditors are misinformed about their credit risk and are overambitious about their margins of safety.

In this framework, investment bankers come to play a crucial role in Veblen's system, since they 'had their own unique form of good-will', even though it was difficult

to quantify (Veblen 1904: 171). In Veblen's time, J.P. Morgan and Company was the prototype in investment banking, 'and more unequivocally, the good-will of the head of the firm' (Veblen 1904: 172). It is sensible to argue that the captains of industry might use manipulation to create expectations that satisfy the perceptions of the captains of finance about the goodwill. Therefore, as Veblen has marked out, in the business system there is a spiritual process of building and fulfilling expectations about the notion of goodwill that the captains of finance hold. In particular, Veblen (1904: 173) notes: '[B]ut good-will on this higher level of business enterprise has a certain character of inexhaustibility, so that its use and capitalization in one corporation need not, and indeed does not, hinder or diminish the extent to which it may be used and capitalised in any other corporation'. As Raines/Leathers (1993) have pointed out, the business enterprise system is dominated by large investment banks as the result of the internal process of institutional development triggered by evolutionary changes in financial institutions.

However, the businessmen's successful manipulation greatly depends on the pace of financial innovations. Lawson/Lawson (1990) and Raines/Leathers (2008) have brought forward the important role the financial innovations have in the restructuring of Veblen's financial system. In our context, this restructuring allows leverage to carry on, anchored by the manipulated difference between the perceptions and expectations that markets form about the (manipulated) value of the corporation's goodwill and its actual value derived from its machine and production processes. In this context, manipulation and financial innovation are likely to cause over-leveraging and speculative bubbles.

However, various reasons might generate a process of deleveraging. Decreases in aggregate demand or increases in wages are likely to eliminate expected profits, inducing changes in expectations and liquidity constraints. Veblen pays considerable attention to the sterility of credit, which, he argues, makes crisis certain. Veblen (1904: 58) notes that 'such use of credit does not add to the aggregate of industrially productive equipment nor increase its material output of product, and therefore it does not add materially to the aggregate gross earnings obtained by the body of business men engaged in industry'. Veblen pinpoints the unproductive use of credit because it is highly associated with the culture of the business enterprise system. It is the factor that increases the discrepancy between the putative and the actual earning capacity of the company. The higher is the unproductive use of credit, the higher the manipulation needs to be for businessmen to succeed in emulation. But the higher the manipulation, the higher is the leverage structure and the possible inability of the firm to meet its debt obligations, and also the higher is the possibility for a speculative crash to happen. The sterility of credit increases the insolvency of the business sector as well as that of the financial sector. Veblen viewed leverage and deleverage as the two financial processes of the institutional adaptation of the business enterprise system, which evolves through processes of booms, financial crises and depressions.

2.2 Stabilising an unstable 'business enterprise system'

Raines/Leathers (1992: 433) argue that Veblenian financial markets incorporate 'both a tendency toward collusive stability and resurgent periods of financial instability'. Financial stability created by decisions made by the captains of industry and finance promote collusive structures. In industry, Veblen perceived that businessmen would naturally seek to deal with their cut-throat competition due to the expansion of financial markets and financial innovations. Output and price control could be accomplished

by producer coalitions – that is, mergers and holding companies. Such arrangements might improve the financial structure of corporations and the capability of managers to effectively manipulate goods and stock prices, the goodwill and the leverage potentials for their firms. This might also lead to better financial positions in terms of the capacity the corporations might have to pay back their debt obligations. However, financial innovations and the extensive use of leveraging will lead to new waves of competition that will undermine the stability of the financial markets.

However, coalitions within the industry are not, by themselves, sufficient to eliminate financial fragility and instability. Veblen thought that the achievement of financial stability also required processes that promote comprehensive controls of credit. These processes could take two forms. First, the collusion of greater credit institutions, which increases their control of the creation and the allocation of credit; an example would be large investment bankers with the liquidity capacity to reorganise and merge existing corporations. Second, governmental agencies capable of applying regulatory structures and the Federal Reserve System (Fed) (Raines/Leathers 1992). Veblen devoted considerable attention to the capacity of the Fed to achieve financial stability and eliminate the dangers of financial crisis (Veblen 1923: 178–179, note 5), because, as Raines/Leathers (1992: 438) note, it can ‘extend, facilitate, simplify and consolidate the unified control of the country’s credit arrangements’. Raines/Leathers use the term ‘process innovations’ to describe the stabilising effect of the above-mentioned processes on the financial markets.

Product innovations in the form of corporate securities in Veblen’s time, or in the form of securitization, futures and interest rate swaps in today’s financial reality, allow banks and corporations to expand credit and the ease of negotiating credit extensions. Nonetheless, financial innovations restructure financial balance sheets, practices and the financial markets through a process of imitation and routinization that leads to speculative price processes that ultimately result in financial crises. However, the routinization of product innovations triggers process innovations, like the Fed, that might increase the collusive control of the credit system. A new era of collusive stability is likely to emerge as a result of government regulatory structures that limit competition and speculation. However, instability is more likely to re-emerge because of a new wave of product innovations that render ineffective the established regulatory structures. The thrust of Veblen’s thinking is given by Dirlam’s (1958) comment that Veblen would have been sceptical of any financial reform targeted to deal with financial abuses and the restoration of confidence in financial markets, because he believed the financial abuses were the essence of the business enterprise system.

3 MINSKIAN FINANCIAL MARKETS

Minskian financial markets draw on Minsky’s intention to integrate Schumpeter’s evolutionary concept of innovation and Keynes’s insights about how policy reactions to fragile financial structures and policy intervention create possibilities for a coherent capitalist system, which is naturally unstable (Minsky 1986b; 1990). The origin of Minsky’s intention was his endeavour to explore a historical and institutional perspective of the capitalist development of the USA (see, for example, Whalen 2001; Minsky 1993; 1996; Minsky/Ferri 1991; Ferri/Minsky 1989). The theoretical outcome was the development of the financial instability hypothesis interpretation of Keynes’s *General Theory*, which set out the foundations of an investment theory of business

cycle and a financial theory of investment for capitalist economies (see Minsky 1975; 1982; 1986a).

More specifically, in Minsky's system, the financial markets evolve through processes of creation and destruction that bring about fragility and instability instead of coherence and steady growth (Minsky 1980; 1992). Minsky's financial instability hypothesis is an institution-specific framework that relies on two fundamental pivots: a process of capital development under systemic uncertainty in real calendar time; and a complex system of interactions among processes that determine investment demand, financing conditions, aggregate demand and the distribution of income that determine the path through time of a monetary production economy. Minsky perceived the process of capital development as a financing process structured as dated payment commitments in which financial markets and in particular the banking system play the key role. The complex system of the above-mentioned processes and financial interrelations rise from everyday negotiations between firms, banks and other financial institutions over leverage structures and margins of safety.

Leverage structures create liability structures, which will be validated or repudiated by the solvency and the liquidity position of economic units. Minsky argues that financial markets normally use leverage with diminishing cushions of safety, as sustained expansion becomes the prevailing expectation. Banks increase leverage whenever they have similar beliefs as firms that investment in real assets will generate sufficient cash flows to fulfil financial commitments. If the new investment generates cash flows that are substantially less than the cash commitments, firms and banks are exposed to the risk of insolvency, default and liquidation. The insolvency and default risk depends on the financial structure of the economic units – that is, if they are hedge, speculative or Ponzi. The risk increases when the quantity of investment rises, because lenders and borrowers perceive greater risk associated with a higher degree of leverage. Lenders consider the balance sheet of the borrowers and especially their leveraging capital, net worth and prospective income flows, as well as their own balance sheets, and rely on informal rules of thumb to appreciate the margin of safety (Papadimitriou/Wray 1997; 1998; Dymski/Pollin 1992; Kregel 1997; 2007).

Minsky highlighted that business and banks' realised profits are the centre around which monetary production economies revolve. In particular, he (1985–1986: 7) notes that profits 'are the raw material for the formation of bankers' and businessmen's expectations, that lead to investment and financing conditions, and they furnish funds to financing institutions, which enable them to acquire new issues that finance investment'. If, at a given level of investment, actual profits turn out to be lower than the expected ones, then economic units might not be able to sustain solvency and banks will deleverage. This is very probable in a capitalist system characterised by Keynes's uncertainty. This is the principal reason that financial markets are endogenously fragile and naturally unstable.

Minsky (1986a) proposed a two-price system as the institutional blender to illuminate the endogenous instability of financial markets and their destabilising effect on the financial model of capitalism. The asset price system demonstrates how investment uncertainty and the amount of investment affect effective demand and the amount of aggregate profit to be realised and distributed among the firms. Investment uncertainty rises from an unknown path of future effective demand, profits and cash flows. However, cash-flow uncertainty produces uncertainty about firms' capability to sustain their leverage structure and satisfy debt commitments. In addition, investment uncertainty arises from market risk (see Dymski/Pollin 1992). If the non-financial corporate

sector fails to estimate accurately the market risk associated with changes in the asset prices on secondary markets, then the default risk of its portfolio increases. An increase in the risk-return profile of firms' balance sheets increases the fragility of financial markets. Higher market risk affects negatively new investment decisions and perceptions of the default risk of firms.

Furthermore, Minsky thinks about the administration of product prices as firms use market power to set the mark-up, in a Kaleckian manner. In Minsky's system, the administration of nominal prices increases the control that firms and the business sector have over nominal inflows. In this way they affect the formation of the market expectations about their financial posture, leverage structure, solvency and liquidity. Nevertheless, at the macro level and due to the absence of any type of coordination, prices influence the distribution of income and delineate the aggregate amount of profit for firms, which, however, is rarely realised because of an insufficient effective demand.

In Minsky's reasoning, stable periods naturally lead to optimism, which rewards borrowers' and lenders' risky behaviour and leverage decisions. Unfulfilled profit expectations and agents' failure to honour their debt bring about falls in capital asset prices, because agents start to sell their liquid assets to avoid insolvency. This in turn might generate negative impacts on the value of bank liabilities and lenders' risk, since creditors also face difficulties in meeting their own debt. Uncertainty over the value of a bank's liabilities is the source of a cumulative causation process that is likely to cause financial panic and crisis. As a result, booms cause the financial positions to evolve from robust to fragile, thereby increasing the possibility of a Fischer's debt-deflation process.

In Minsky's system, financial markets are the institution through which investment uncertainty, over-leverage, default and market risk and disappointed expectations cause incoherence and the natural instability of the financial model of capitalism. Coherence and stability in financial markets and in financial capitalism is a likelihood that depends on the capacity of deficit spending and leveraged units to maintain their leverage structures and to meet their financial commitments. For Minsky this possibility is plausible, at least over a period of time, if governmental institutions do originate policy processes that can sustain the viability and the sustainability of leverage structures.

3.1 'Creative destruction'

Burlamaqui (2000), Burlamaqui/Kregel (2005) and Papadimitriou/Wray (2010) argue that the appreciation of Minsky's concept of creative destruction in finance depends on our knowledge about the evolution of the banking system; in particular the evolution from Schumpeter's view of banks as passive institutions that finance manufacturing innovation and growth, to Minsky's view of them as institutions that aggressively innovate for liquidity and profitability. This evolution in banking induces changes in the leverage structures of the economic units that engage in industrial and financial competition. These changes cause processes of transformation in financial markets, which affect the financial structure, the solvency and the liquidity position of the economic units.

More specifically, as Burlamaqui/Kregel (2005) have argued, Minsky's banks require complex information about the formation and evolution of prices in various securities markets and have a stronger tendency towards financial innovation and competition. However, the diffusion of financial innovation in the form of new

products and processes within the financial marketplace is instantaneous. The reason is that it is difficult to manage patent protection from imitation as well as the diffusion of information among rival financial institutions. Competition makes continuous financial innovation necessary for financial institutions to make profits and market positions.

Minsky's banks – much like non-financial corporate firms, households and governments – face a 'survival constraint', which requires that the cash outflows necessary to maintain the liabilities created to acquire their assets do not exceed the cash inflows generated by the same stock of assets, if existing stock positions are to be maintained (Minsky 1982). Nevertheless, Keynes's uncertainty makes the coordination between cash inflow and cash outflow improbable. Therefore, banks' fulfilment of the 'survival constraint' involves finance. Financial markets are crucial because they construct financial linkages that oxygenate economic units (Burlamaqui/Kregel 2005). The 'survival constraint' implies the possibility for economic units to become illiquid in the present in exchange for expectations of recovering liquidity and profitability in the near future. Nonetheless, over-optimistic expectations and over-leverage might induce liquidity crunches triggering insolvencies, defaults and bankruptcies, conditional to whether the financial institutions are hedge, speculative or Ponzi.

Consequently, financial innovation and competition play a significant role in the tendency of the financial markets towards fragility and instability. Minsky's original contribution is that he envisions a Schumpeterian evolutionary process of endogenous changes tied to the competitive strategies originated by the banking system. These changes result in solvency and liquidity crises, due to the subjectivity and volatility of expectations about asset prices, cash flows and the sustainability of the leverage structures. The normal behaviour of banks is such that financial institutions tend to underestimate risks in the booms, and to overestimate risks in the busts.

Minsky's banks and financial institutions desire to hold cash cushions of safety to avoid liquidity crunches. Burlamaqui/Kregel (2005: 12) pinpoint that 'liquidity provides an important "protective device" or "defensive strategy" to manage uncertainty and survival'. When a bank is a hedge-financing unit, it provides assurance to the market that it is capable of managing liquidity risk. On the contrary, a speculative-financing bank creates expectations for unmanageable liquidity risk and faces liquidity crunches. Financial institutions use product innovations – that is, securitization – to increase their liquidity and profits as well as leverage. Such innovations do not eliminate the risk in the system, but they exchange it between different financial and non-financial agents.

Therefore, financial innovation and competition makes it much more difficult for the economic units to identify appropriate margins of safety. In Minsky's structure, financial innovation and complex leverage structures imply that the risk to the economy increases, since the insolvency or even a temporary illiquidity of a bank or a non-bank organization can have a chain reaction and affect the solvency or liquidity of many organizations. This financial complexity reinforces the endogenous trend of financial markets towards fragility and instability and becomes apparent during the upward phase of the economic cycle, when banks have a tendency to underestimate the risks they face. Furthermore, the creditors affected or not by the liquidity/solvency crisis become more risk-averse, thereby reducing the acceptable leverage rates and increasing their liquidity preference. Deleverage is a propagation mechanism that induces cumulative processes that are likely to transform small monetary and financial shocks into financial crises.

3.2 Stabilising an unstable financial capitalism

Minsky, following Keynes, points out that if the financial markets were left to their own devices, they would, in all probability, function to amplify rather than to compensate or absorb the fragility and instability created by the cyclical process of growth. Minsky thus views financial capitalism to be at best ‘conditionally coherent’. The flaws that it exhibits rely on time-dependent financial linkages, over-leveraged economic units and the swings of financial markets between robustness and fragility that make solvency and liquidity concerns fundamental.

For Minsky (1986a), the conditional coherence of financial capitalism depends on the institutional context of the conducted economic policy. Minsky/Ferri (1991: 4) note that ‘institutions and interventions thwart the instability breeding dynamics that are natural to market economies by interrupting the endogenous process and starting the economy again with non-market determined values as initial conditions’. Furthermore, Minsky et al. (1994: 2) remark that ‘[T]o contain the evils that market systems can inflict, capitalist economies developed sets of institutions and authorities, which can be characterized as the equivalent of circuit breakers’. In addition, Minsky and Ferri (1991: 20) notify that ‘in a world where the internal dynamics imply instability, a semblance of stability can be achieved or sustained by introducing conventions, constraints and interventions into the environment’.

However, for Minsky the most crucial objective is to identify the institutions that cause the natural instability and to develop the institutions to constrain this endogenous instability. Minsky’s two-price systems provide the institutional reasoning to understand the evolving nature of economic policy at dampening financial instability and enforcing coherence. A key insight behind Minsky’s two-price systems is the margin of safety that agents must build into their decisions, as a consequence of the uncertainty with which individuals hold the mental model that guides their behaviour and decisions. This is why solvency and liquidity matter for the operation of the financial markets. Decisions made by individuals impute this uncertainty to others in the economy. Further, if rational agents doubt the validity of their mental model, then they might abandon it as the evolution of the economy generates an environment that weakens the degree of belief in their mental model. With the adoption of a new model when this happens, significant changes in the behaviour of individuals and the economy are possible.

Institutional arrangements to constrain expectations of capital and asset prices are vital. However, it must be clear that for Minsky, institutions and interventionist policies cannot permanently stabilise financial markets, but can only set ceilings and floors to their ‘natural’ instability. The institution of Big Government (BG) functions as a significant automatic stabiliser of the expenditure system for the private sector, which pushes up current output and prices, and can partially compensate for the fall in profit flows that results from lower levels of investment. Minsky (1986a) argues that in a ‘Wall Street’ economy, the public deficit has three effects: (1) an income and employment effect; (2) a cash flow effect; and (3) a portfolio effect. However, these three effects might not be sufficient to prevent a crisis, because the institution of BG cannot directly support the fall in the value of a bank’s assets following a fall in capital goods prices and hence it cannot protect against possible bank defaults.

The institution of Central Bank (CB) must come to act as a stabiliser in the financial markets, where the prices of financial assets, cash flows and balance sheets are determined. Central banks should target financial stability through the stabilization of the price of existing financial assets and provide the liquidity of financial positions

(Tymoigne 2009; Wray 2003; 1995; 1992; Kregel 1992). Thus, lender-of-last-resort interventions targeting directly the purchase of assets of questionable value or loans to creditors with a high probability of default are necessary to prevent defaults that might lead to a snowball of other failures. Doubtless, lender-of-last-resort interventions are likely to increase moral hazard effects and to change the expectations of economic agents, triggering financial innovation and increasing the possibility of financial instability and crisis. To prevent these effects, Minsky proposes that lender-of-last-resort interventions be accompanied by the supervision of private balance sheets (Minsky 1992). However, it is important to highlight that policy adapts to the evolution of financial markets triggered by the innovations of profit-seeking banks and financial institutions. Minsky believes that this adaptation process is the most significant problem in financial capitalism, because financial evolution undermines the coherence produced by the stabilising institutions.

4 CONCLUSIONS: A CASE FOR INTEGRATION

Veblen's principal concern was to develop an institutional analysis of economic and social change (Hamilton 1970). Minsky, quite at variance with Veblen, identifies finance as the driving force behind the evolution of twentieth-century American capitalism. Minsky regards himself as a disciple of Keynes and Kalecki, who were not Veblenians; however, some authors (see for example Vining 1939; Dillard 1980; 1987; Wray 2007) see an affinity between Veblen and Keynes. Kelso/Duman (1992) have marked out crucial points of agreement and conceptual differences in Veblen's and Minsky's analytical methods.

My analysis provides arguments to conclude that Veblenian and Minskian financial markets bear clear similarities. Veblen's and Minsky's vision that financial fragility and instability occur as a natural outcome in monetary and credit economies contrasts with the conventional view, which is extraordinarily non-monetary and overlooks change and its interplay with what happens in the spheres of money and credit. Nonetheless, there are differences in the scope, details and emphasis between Veblen's system and Minsky's system. In most respects, Veblen goes further and deeper than Minsky in drawing out the institutional essentials of the financial fragility and instability within the business enterprise system. But, in the analysis of the financial sector, Minsky not only adds much sophistication to the work of Veblen, but he is truly innovative with regard to the underlying reasons for which we observe financial fragility in modern capitalism. This is to be expected, as Minsky is writing during a period in which the financial markets are much more developed than when Veblen was writing.

Veblen and Minsky share the view that financial fragility and instability is the outcome of capitalist processes that are seriously flawed. Both pay attention to the financing process of capital accumulation. New combinations in production and new products could not appear without being financed; finance and change are in a symbiotic relationship. Moreover, investment is forward-looking: it takes place in real historical time and fluctuates with changes to confidence in the expected business profits and changes to the expectations of future asset and goods prices. Besides, all capital asset positions rely on leverage and liability structures. The purchase of capital assets today depends on the expectations of future income flows that are determined by aggregate demand and which validate past investment decisions; and on future income flows that validate future payment commitments. If future income flows are less than what the

expected income flows were at the time the investment decisions were taken, then these decisions failed to be validated, affecting investment. In this respect, both recognise a tendency of capitalism toward insufficient aggregate demand and profit realization and validation problems. They provide crucial and realistic insights about why investment is the most volatile component of aggregate demand. These insights range from investors' goods and assets price and information manipulation and subjective evaluations of the future to the role of the industrial and financial innovations, revisions of rules of thumb, liquidity and variations in the perceived lender's and borrower's risk and margins of safety.

Both emphasize leverage, deleverage, innovation, competition and uncertainty as the principal causes of creative and destructive financial flows and linkages that destabilize the balance sheets of corporations and banks, thereby inducing fragility and instability in the financial markets. Veblen focuses primarily on the corporate sector, while Minsky is mostly concerned with the financial sector. For Veblen and Minsky, a comprehensive understanding of financial markets would have to recognize their evolutionary nature, and that they are a fully endogenous propriety of a capitalist system that evolves under the impact of innovation and profit-led industrial and financial processes, competition and leverage. They have acknowledged as a first principle of their conceptual systems the inherent and 'natural' fragility and instability of the financial markets in the financial model of capitalism.

Both believe that the dynamic forces of capitalism are explosive and must be controlled by institutional adaptation. However, Veblen viewed the adaptation process to be a process of routinization of financial practices, which sooner or later will change under the impact of new innovations. Veblen saw financial markets as constantly evolving, so that stability could not be permanently assured, because financial fragility and instability are the symptoms of the conflict between technological progress and the institutions developed under the logic of pecuniary values within the business enterprise system. Similarly, Minsky conceptualizes a system of institutional ceilings and floors to contain euphoric expectations and increase the credibility of borrowers' and lenders' margins of safety. However, institutional constraints change behaviours in a manner that trigger financial innovations and unsustainable speculative processes of leverage and margins of safety in the banking system.

Veblen and Minsky have argued that financial market failures are caused by the economic and social institutions of financial capitalism, not by external shocks. Minsky views institutional evolution in the form of new financial institutions, new financial instruments and financial market innovations that change the financing process over extended periods of non-turbulent time, generating processes of over-indebtedness and over-leveraging in the financial sector as well as in the business sector. Veblen's institutions, in the form of social habits and routines, are processes within the business enterprise system governed by the logic of pecuniary values.

The institutional theory of Veblen acknowledged the flaws of the financial markets with their disproportionate balance of wealth and economic and social power. The captains of finance pursue putative profits through the control of the flow of liquidity and, more importantly, the flow of information. Investment banks promote the financial information they regard as suitable to influence market expectations and decisions about acquisitions, mergers, leverage and liability structures, and asset prices. Veblen saw the flow of financial information as a process that provides opportunities to skilled individuals, managers, financiers, etc., to alter the leverage and the capital structure of businesses and banks and to manipulate the value of capital and financial assets. Veblen's financial markets are not bounded by the flow of perfect information or

rational agents that make decisions with well-ordered preferences for risk. The captains of industry and finance are not just better informed; they decide the rules of the game according to the cultural values and habits imposed by the business enterprise system.

Concluding, in my view, there are many complementarities between Veblen and Minsky that bear solid ground for the integration of Veblenian and Minskian financial markets. This integration might set out an institutional approach to finance that differs radically from the self-regulated and efficient financial markets illusion of conventional economics. Furthermore, this integration provides foundations and possibilities for macro-finance research on how endogenously fragile and unstable financial processes destabilize 'real' processes and cause economic change in modern capitalism.

REFERENCES

- Bolbol, A., Lovewell, M. (1992): Three views on stock markets and corporation behaviour: Tobin, Veblen and Marx, in: *Journal of Post Keynesian Economics*, 23(3), 527–543.
- Burlamaqui, L. (2000): Schumpeterian competition, financial innovation and financial fragility: an exercise in blending evolutionary economics with Minsky's macrofinance', Paper given at the 8th Schumpeter Conference, Change, Development and Transformation, Manchester, UK, 28 June–1 July.
- Burlamaqui, L., Kregel, J. (2005): Innovation, competition and financial vulnerability in economic development, in: *Brazilian Journal of Political Economy*, 25(2), 5–22.
- Cornehls, J. (2004): Veblen's theory of finance capitalism and contemporary corporate America, in: *Journal of Economic Issues*, 38(1), 29–58.
- Dillard, D. (1980): A monetary theory of production: Keynes and the Institutionalists, in: *Journal of Economic Issues*, 14(2), 255–273.
- Dillard, D. (1987): Money as an institution of capitalism, in: *Journal of Economic Issues*, 21(4), 1623–1647.
- Dirlam, J. (1958): The place of corporation finance in Veblen's economics, in: Dowd, D. (ed.), *Thorstein Veblen: A Critical Reappraisal*, New York: Cornell University Press, 199–219.
- Dymski, G., Pollin, R. (1992): Hyman Minsky as a hedgehog: the power of the Wall Street Paradigm, in: Fazzari, S., Papadimitriou, D. (eds), *Financial Conditions and Macroeconomic Performance*, New York: M.E. Sharpe, 27–61.
- Ferri, P., Minsky, H. (1989): The breakdown of the IS-LM synthesis: implications for post-Keynesian economic theory, in: *Review of Political Economy*, 1(2), 23–143.
- Ganley, W. (2004): The theory of business enterprise and Veblen's neglected theory of corporation finance, in: *Journal of Economic Issues*, 38(2), 397–403.
- Hamilton, D. (1970): *Evolutionary Economics. A Study of Change in Economic Thought*, Albuquerque: University of New Mexico Press.
- Kelso, P., Duman, B. (1992): A Veblenian view of Minsky's financial crisis theory, in: *International Journal of Social Economics*, 19(10/11/12), 222–234.
- Kregel, J. (1992): Minsky's 'two price' theory of financial instability and monetary policy: discounting versus open market intervention, in: Fazzari, S., Papadimitriou, D. (eds), *Financial Conditions and Macroeconomic Performance*, New York: M.E. Sharpe, 85–103.
- Kregel, J. (1997): Margins of safety and weight of the argument in generating financial fragility, in: *Journal of Economic Issues*, 31(2), 543–548.
- Kregel, J. (2007): The natural instability of financial markets, The Levy Economics Institute of Bard College Working Paper, No. 523.
- Lawson, C., Lawson, L. (1990): Financial system restructuring: lessons from Veblen, Keynes and Kalecki, in: *Journal of Economic Issues*, 24(1), 115–131.
- Minsky, H. (1975): *John Maynard Keynes*, New York: Columbia University Press.

- Minsky, H. (1980): Money, financial markets, and the coherence of a market economy, in: *Journal of Post Keynesian Economics*, 3, 21–31.
- Minsky, H. (1982): *Inflation, Recession and Economic Policy*, Cheltenham, UK: Edward Elgar.
- Minsky, H. (1985–1986): An introduction to post-Keynesian economics, in: *Economic Forum*, Winter, 1–13.
- Minsky, H. (1986a): *Stabilizing an Unstable Economy*, New York: McGraw Hill.
- Minsky, H. (1986b): Money and crisis in Schumpeter and Keynes, in: Wagener, H.J., Drukker, J.W. (eds), *The Economic Law of Motion of Modern Society: A Marx–Keynes–Schumpeter Centennial*, Cambridge, UK: Cambridge University Press, 112–122.
- Minsky, H. (1990): Schumpeter: finance and evolution, in: Heertje, A., Perlman, M. (eds), *Evolving Technology and Market Structures: Studies in Schumpeterian Economics*, Ann Arbor: The University of Michigan Press, 51–74.
- Minsky, H. (1992): The financial instability hypothesis, The Levy Economics Institute of Bard College Working Paper, No. 74.
- Minsky, H. (1993): Finance and stability: the limits of capitalism, The Levy Economics Institute of Bard College Working Paper, No. 93.
- Minsky, H. (1996): Uncertainty and the institutional structure of capitalist economies, in: *Journal of Economic Issues*, 30(2), 357–367.
- Minsky, H., Delli Gatti, D., Gallegati, M. (1994): Financial institutions, economic policy and the dynamic behavior of the economy, The Levy Economics Institute of Bard College Working Paper, No. 126.
- Minsky, H., Ferri, P. (1991): Market processes and thwarting systems, The Levy Economics Institute of Bard College Working Paper, No. 64.
- Mitchell, W. (1969): *Types of Economic Theory: From Mercantilism to Institutionalism*, Vol. 2, New York: Augustus M. Kelley Publishers.
- O’Hara, P.A. (2000): *Marx, Veblen, and Contemporary Institutional Political Economy*, Cheltenham, UK: Edward Elgar.
- Papadimitriou, D., Wray, R. (1997): The institutional prerequisites for successful capitalism, in: *Journal of Economic Issues*, 31(2), 493–500.
- Papadimitriou, D., Wray, R. (1998): The economic contributions of Hyman Minsky: varieties of capitalism and institutional reform, in: *Review of Political Economy*, 10(2), 199–225.
- Papadimitriou, D., Wray, R. (2010): Introduction: Minsky on money, banking and finance, in: Papadimitriou, D., Wray, R. (eds), *The Elgar Companion to Hyman Minsky*, Northampton, MA, USA: Edward Elgar, 1–30.
- Raines, P., Leathers, C. (1992): Financial innovations and Veblen’s theory of financial markets, in: *Journal of Economic Issues*, 26(2), 433–440.
- Raines, P., Leathers, C. (1993): Evolving financial institutions in Veblen’s business enterprise system, in: *Journal of the History of Economic Thought*, 15(2), 249–264.
- Raines, P., Leathers, C. (2000): *Economists and the Stock Market*, Cheltenham, UK: Edward Elgar.
- Raines, P., Leathers, C. (2008): *Debt, Innovations, and Deflation*, Cheltenham, UK: Edward Elgar.
- Tymoigne, E. (2009): *Central Banking, Asset Prices and Financial Fragility*, Abingdon: Routledge.
- Veblen, T. (1904): *The Theory of Business Enterprise*, New York: Scriber’s Sons.
- Veblen, T. (1905): Credit and prices, in: *The Journal of Political Economy*, 13(5), 460–472.
- Veblen, T. (1908): On the nature of capital: investment, intangible assets, and the pecuniary magnate, in: *The Quarterly Journal of Economics*, 23(1), 104–136.
- Veblen, T. (1967): *Absentee Ownership and Business Enterprise in Recent Times: The Case of America*, Boston: Beacon Press.
- Vining, R. (1939): Suggestions of Keynes in the writings of Veblen, in: *The Journal of Political Economy*, 47(5), 692–704.
- Whalen, C. (2001): Integrating Schumpeter and Keynes: Hyman Minsky’s theory of capitalist development, in: *Journal of Economic Issues*, 35(4), 805–823.

- Wray, L.R. (1992): Minsky's financial instability hypothesis and the endogeneity of money, in: Fazzari, S., Papadimitriou, D. (eds), *Financial Conditions and Macroeconomic Performance*, New York: M.E. Sharpe, 161–180.
- Wray, L.R. (1995): If free markets cannot 'efficiently allocate credit', what monetary policy could move us closer to full employment?, in: *Review of Political Economy*, 7(2), 186–211.
- Wray, L.R. (2003): Monetary policy: an institutional approach, in: Tool, M., Bush, P. (eds), *Institutional Analysis and Economic Policy*, Boston: Kluwer Academic Publishers, 85–113.
- Wray, L.R. (2007): Veblen's theory of business enterprise and Keynes's monetary theory of production, in: *Journal of Economic Issues*, 41(2), 617–624.