Financing investment under fundamental uncertainty and instability: A heterodox microeconomic view

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Abstract

The business enterprise in the real world wrestles with fundamental uncertainty and instability. Key enterprise decisions such as pricing, financing, and investment are thus made strategically rather than optimally. Heterodox economists are, however, divided in the account of business enterprise's financing behavior; macroeconomists put an emphasis on external financing, whereas microeconomists on internal financing. Moreover, they often stop short of establishing a link between the two. Drawing upon the social provisioning perspective, this essay aims at providing a new light on financing focusing on strategic enterprise decision-making mechanisms.

Keywords: Business enterprise, pricing, financing, investment, uncertainty, instability, social provisioning process, social surplus, effective demand

JEL Classification Codes: B50, D21, G30

1 Introduction: Uncertainty and the Social Provisioning Process

Uncertainty in the historical time is too obvious to ignore. Economists have long wrestled with uncertainty in constructing a sensible economic theory. Taking uncertainty into account indeed makes a theory indeterminate and complicated. Should a model begin and end up with an equilibrium state, uncertainty is to be converted into something readily calculable (that is, risk in a probabilistic sense), or to be completely abandoned as if uncertainty does not exist. The latter is precisely the case of the efficient market theory in which rational individuals have perfect information (see, for example, Fama 1965). New Classical economists and New Keynesians, among others, have relaxed a firm belief in perfect information in order to explain abnormalities routinely happening in "efficient" markets. In their models, rational agents with bounded rationality make errors, whereas the model is assumed to be consistent and correct regardless of agents' errors. With this relaxed assumption as to uncertainty, the core propositions of neoclassical economics, such as rational individuals, the equilibrium concept, market clearing, and market stability remain intact or even reinforced. This is the reality upside down from the heterodox economics perspective (Crotty 1996; Minsky 1996; Henry 2012).

Some conceptual clarifications are in order. Firstly, risk and uncertainty, although they are interchangeable in neoclassical-mainstream economics, are different as well as interactive in a significant sense. Riskiness is an acting person's subjective evaluation of external and future economic conditions, while uncertainty is a fact of life, regardless of the amount or asymmetry of information held by acting persons, in the sense that the future is unknown as well as unknowable. Uncertainty has nothing to do with probability (Keynes 1936, 148, fn. 1; Davidson 2010). Of course, the degree of uncertainty varies. Keynes also notes that "[t]he expectation of life is only slightly uncertain. Even the weather is only moderately uncertain" (Keynes 1937, 213-4). Such a concept of uncertainty has led Post Keynesians, among other heterodox economists, to develop their theory that is radically different from mainstream theory. To highlight the point that is relevant for the present discussion, all economic activities including business activities are thus situated in the monetary production economy. Optimizing behaviors are not possible under such radical uncertainty. Similarly, some others point out that uncertainty is conditional in the sense that there is a degree of uncertainty that is institutionally and historically contingent (Crotty 1996). In the latter sense of uncertainty, agency with socio-economic power becomes *sine qua non*.[1] And it does not mean at all that uncertainty can be reduced to or interchangeable with risk as in neoclassical theory.

[1]Such power stems from the hierarchical structure of society. In other words, classless and conflictless markets as in neoclassical economics are inconceivable under capitalism.

Secondly, bounded rationality in neoclassical economics is "substantial rationality" in the sense that rational individuals are constrained by limited information in addition to conventional "known-with-certainty" constraints in the optimizing models. Some heterodox economists tend to use the term bounded rationality that is, following Hebert A. Simon (1976; 1987), synonymous with "procedural rationality" (Lavoie 1992, 51-4). To avoid possible confusions, heterodox economists might stop using an analytically meaningless term 'rationality' and, instead, use *strategic or deliberate behaviors under fundamental uncertainty*.

Once historical time and radial uncertainty is taken seriously, such concepts as cumulative causation, a strategic decision-making process, the evolution of institutions, the accumulation of capital, agency, and the going concern are placed at the center of economic theory. To use a succinct phrase that is consistent with the theoretical-methodological core of heterodox economics, economics is the study of the social provisioning process that is in its nature monetary and class-based. It follows that strategic economic decisions and behaviors are put in the socio-historical context—institutions, rules, conventions, cultures, values, ideologies, social relationships, and social classes. That future is fundamentally uncertain and transmutable requires strategic and deliberate decisions and actions made by agency qua acting persons (as opposed to asocial optimizing individuals) for them to survive, grow and reproduce over time. In order for agency to achieve such goals actions need power and control. And the latter is rendered available in the hierarchical class society. In other words, the capitalist society requires a hierarchical class system in which one dominant class (that is, the capitalist class and the state) controls the social provisioning process (Gruchy 1987; Henry 2012; Jo 2011*b*; Lee 2011*b*; Lee and Jo 2011).

The analysis of the social provisioning process as a whole involves agency, structure, and causal mechanisms. The interaction between them is radically uncertain in two fundamental senses; one being that agency maintains or changes the existing structures by way of causal mechanisms and hence the path of the provisioning process is open, and another being that they are denominated in money or the credit-debt relation that is in its nature uncertain in terms of value (Lawson 2003; Wray 2004).[2] In this regard, the social provisioning process in historical time is open and uncertain without any deterministic or stable equilibrium state. Implied too is the irrelevance of the micro-macro "dichotomy" as a conceptual demarcation of economics. Economy is an organic whole reproduced and transformed by historical interactions between agency, structures, and mechanisms and thereby is to be neither aggregated nor disaggregated. In order to understand the role of the business enterprise in the capitalist system, therefore, it is necessary to understand its strategic actions (such as, pricing, investment,

[2]If certainty is assumed, there should be no difference between expected profits and actual profits, and between ex ante rates of return and ex post rates. The latter implies that the rates of return must be the same for all the shares in the market under certainty (Wood 1975, 34-36).

financing) conditioned by the structures of production, technology, and industry as well as its outcomes (such as wage and profit, employment, output, and income distribution). Thus the interaction between different levels (that is, the whole system and sub-systems) through causal mechanisms undertaken by agency, rather than the artificial demarcation, would offer more comprehensive and realistic historical narratives (Lee 2002; 2011*b*; Jo 2011*b*).

From this vantage point, the present research delves into enterprise investment and finance that are, according to most heterodox traditions, *the* most important decisions because they are chiefly associated with the accumulation of the capital, business cycles and crises, and the protection and reproduction of the social classes. One theoretical issue around investment and finance is that strategic investment and financing decisions escape many heterodox economists' notice. As a result, financing is mainly looked through the operation of the financial market in which the supply of and demand for funds are coordinated by the prices of funds. While such an approach has offered important implications with regard to financial instability and business cycles, it is based upon the problematic supply-demand framework or neoclassical microfoundations. Keynes (1936) and many Post Keynesian macroeconomists are not completely free of such a criticism. So it is argued in the paper that that heterodox theory of investment and finance needs proper microfoundations of investment and finance so as to offer better explanations of investment and financing decisions situated in the uncertain and unstable social provisioning process.[3]

The following section delineates the monetary social provisioning process focusing on the enterprise decision-making process. The next section explores financing and investment under uncertainty and instability. It is argued in this section that internal financing as part of strategic enterprise decisions to survive and grow over time is more significant than external financing. And its importance is amplified as instability increases. The last section concludes.

[3]It should be noted that microfoundations based on heterodox (micro)economics have nothing to do with neoclassical microfoundations. The term microfoundations used in the paper is to be understood as heterodox microfoundations of macroeconomic outcomes (see, Jo 2007; Lee 2011*a*).

2 The Business Enterprise in the Monetary Social Provisioning Process

2.1 Enterprise decisions are technical, historical, and social

The business enterprise drives and sets the pace of the social provisioning process by making both routine and momentous decisions that are technical, historical, and social in their character.[4] Business decisions are technical to the extent that the employment of labor power and purchasing of material inputs are technically conditioned (that is, production techniques are represented by the labor and material input coefficients in the input-output matrix of the economy). It goes without saying that techniques available at a point in time is socially and historically generated.

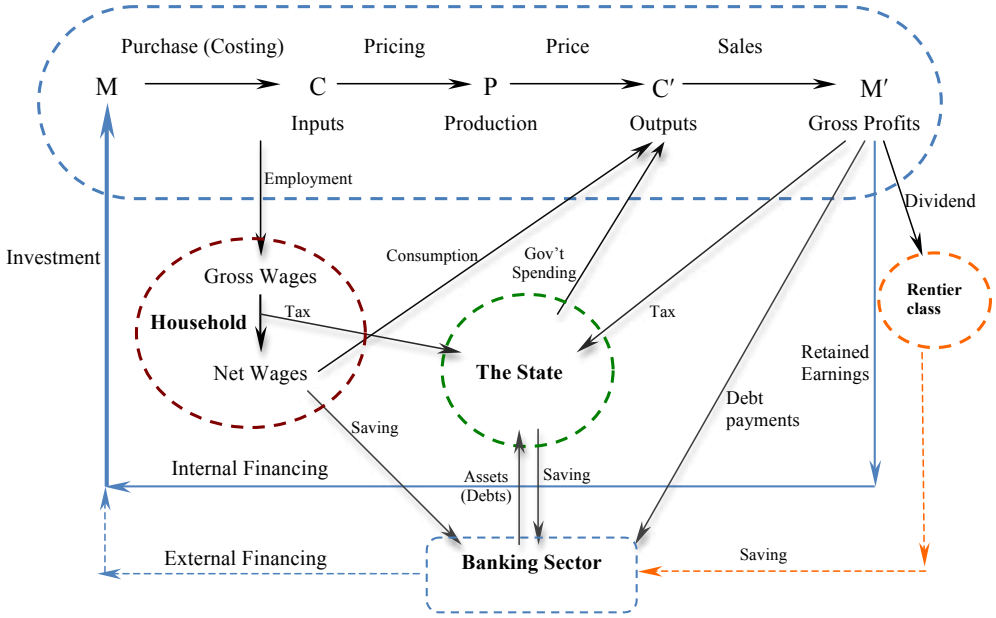
By a historical decision is meant that one decision follows another cumulatively, rather than multiple decisions are made simultaneously. For example, following purchasing decisions which lead to the costing structure through accounting practices, the price of product is determined according to a pricing principle practiced by the enterprise with the expectation of making target profits (Lee 1998). Decisions on dividend payouts, on debt payments (or renewing debts), on retention and internal finance, on external finance, and on the acquisition of financial assets follow consequently.[5] Given these decisions, the level of investment determines the level of profits (Wood 1975, Ch. 2). As a going concern the business enterprise thus makes various decisions that are unceasing sequential actions flowing through historical time. Investment and financing decisions link the present production period of the enterprise (or the current accounting period) to the future period. This implies that the ambiguous and ahistorical differentiation between the short-period and the long-period is irrelevant in historical time or insofar as a going concern is considered. For example, the Sraffian long-period position or the center of gravity itself changes constantly. In other words, the presumed convergence between the short-period position and the long-period position is logically and historically problematic (Lee 1985; 1996; D'Olrando 2005; Lee and Jo 2010).

Business decisions are also social since they involve other social agency (other enter-

[4]Decisions are also made culturally and ideologically. Conventions and norms prevailing in the industry, in the economy, and in the community in which the enterprise is operating will figure in the business decision-making process since the business enterprise is a social agency. Moreover, its capitalist ethos, business ethics, and values in general will be the basis of any business decisions. For more general discussion of a "complex technological society" in which the business enterprise is embedded, see Hayden (1982; 2011).

[5]Enterprise decisions do not have to follow in this particular order. For example, a dividend payout ratio in reference to the owners of the corporation may be determined before other decisions are made. Decisions are enterprise specific as well as contingent upon business cycles. Decisions change as the expectations of economic conditions change.

Figure 1: Monetary Social Provisioning Process



prises as suppliers of inputs, working class households, the state, financial enterprises) and their actions at every stage in business. For instance, a single material input or an individual labor power input alone cannot produce an output. Inputs are productive once they are put together in the system of production. That is, marginal productivity has no meaning in the social process of production and individual inputs are not productive in themselves. In addition, with the going enterprise and the sequential-social process of production, the concept of reoccurring direct and overhead costs is socially constructed. And so are accounting practices (Lee and Jo 2010).

Figure 1 illustrates key business decisions made in an accounting period in relation to other agency in the economy (Note that arrows in the figure indicate flows of physical goods or money.).[6] Some significant theoretical-methodological implications are demonstrated below.

[6] A more detailed illustration of the economy as a whole from the heterodox economic perspective is presented in Lee (2011*b*). While Figure 1 is a simplification of Lee's model, it captures, as described below, key theoretical implications that are relevant to the present issue in question.

2.2 Welfare of the working class depends on the ruling class

Agency makes an array of sequential decisions, while markets or other structures do not. In addition to enterprise decisions described above, working class households make consumption (and saving) decisions. Since employment decisions are made by the business enterprise, wage incomes are mainly dependent upon the enterprise decision to produce outputs (that is, C' the social product). Since the business enterprise decides the amount of the social surplus (that is, consumption goods, fixed investment goods, and government goods and services) and wages are given to workers in the process of production, households do not determine how much and what consumption goods to purchase consumption goods given budget constraints as in neoclassical economics. That is, consumer sovereignty is misleading in the capitalist social provisioning process. Households are given consumption goods and services, but not all the goods and services produced in the economy are available to them. They choose among a narrow range of consumption goods corresponding to their income class. Income effects are thus dominant, whereas substitution effects across the classes of goods and services are limited. Moreover, the class structure of the capitalist society is maintained by creating wage incomes to be used to purchase consumption (or wage) goods, and by creating a hierarchical structure of these goods (Lavoie 1992; Drakopoulos 1994; Lee 2011*b*). What follows from this is that the welfare of working class households depends upon the decisions made by the ruling class—the capitalist class and the state; more specifically, 1) private business enterprises' decision to expand their productive capabilities (that is, investment demand), 2) the state's decision to spend its tax money on surplus goods (that is, government demand), 3) the state's decision to transfer incomes from the capitalist class to the working class, 4) the state's decision to provide public goods at the price lower that they are produced by private business enterprises, and 5) the state's decisions to employ workers in the government sector (for example, an employment of last resort program). In the class-based capitalist economy, therefore, effective demand (1 and 2) coupled with the welfare state (3, 4, and 5) protects the vested interests of the ruling class and reproduces the entire system (Jo 2012). However, it is not to say that capitalist economy and society as whole is stable. This is point is further elaborated later.[7]

2.3 The capitalist state is not a benevolent welfare purveyor

The enduring structure of the social provisioning process and the flow of goods and money within the process thus require an appropriate vision of the state. As indicated

[7]Trade unions, trade associations, cartels, and similar market governance organizations are not discussed here but they play important roles in determining or influencing the wage rate, market price and profit mark-ups.

above, unlike the commonly accepted view of the state among heterodox economists—that is, the "benevolent purveyor of cradle-to-the grave security" (Hill 1964, 395), the state figures in the social provisioning process as the tax authority that redistributes wages and profits, as the giant public consumer who is capable of commanding a significant amount of the social surplus nearly without budget constraints, and as the welfare purveyor (but not necessarily in the interest of the working class, but mostly in the interest of the ruling class since the welfare state would primarily protect the social order by stabilizing the social provisioning process). In addition, due to its constituent role in the composition of effective demand, if there is no social expenditure the effective demand of the economy would be significantly below the level that is necessary to sustain the social provisioning process (Jo 2012).

2.4 Surplus production decisions animate flows of production, incomes, and funds

The preeminence of profits over other types incomes (wage incomes, government revenues, dividends, and capital gains) reinforces the importance of decisions to produce the social surplus. The decisions to produce consumption goods, fixed investment goods, and government goods and services determine the level and composition of the total social product and hence the level of employment through the output-employment multiplier. Planned or effective demand for fixed investment goods, in particular, generates the flow of the production of intermediate inputs, the flow of the production of fixed investment goods, and the flow of funds to finance demand for fixed investment goods. Therefore investment generates profits in the form of fixed investment goods (denominated by the state money) and profits are divided into dividend payouts, debt payments, and retained earnings based on enterprise's strategic decisions to grow and survive. That is, enterprise savings are generated by investment, rather than the other way around. In reality, households also make savings out of wage incomes that are dependent upon enterprise investment and production decisions. In a simple monetary production economy illustrated above, increasing household saving means that less consumption goods are produced and fewer workers are employed—that is the economy is unsustainable. To avoid this problem, theoretically and practically, there must exist a government running deficits. Government deficits further imply that financial assets (e.g., government bonds) and hence the banking sector are inseparable parts of the economy. The amount of loanable funds is, however, not constrained by the amount of gross savings because the banking sector would create funds/credits on enterprises' and government's demands (Eichner 1976; Lee 2011*a*; Lee and Jo 2011).

2.5 Prices are strategically determined

That the social provisioning process is a sequential process through historical time implies that the enterprise decision to produce a certain volume of surplus goods is followed by the price decision. In contrast to neoclassical exchange economy in which quantity and price are simultaneously determined, they are determined by different mechanisms that are established technically, historically, and socially. Therefore, the price mechanism is to be identified technically, historically, and socially. Empirical studies show that business enterprises use different pricing principles and industry prices are made to be stable by enterprises themselves, by market organizations (such as cartels, trade associations), and by government price regulations (Means 1939; Lee 1998, 211; Fabiani, Gattulli and Sabbatini 2007; Melmies 2010). In the real world, prices do not clear markets and the business enterprise takes into account growth and expansion of itself in determining the product price. That is, prices are strategically determined so as to enable the enterprise to finance the desired level of investment necessary through retained earnings (Eichner 1976, 196-200). Prices do not allocate resources, but they are set to gain access to the social provisioning process and to reproduce the business enterprise (Lee and Jo 2011, 865)

2.6 Cost accounting practices define profits and incomes

Strategically determined product prices require cost accounting practices that 1) keep track of reoccurring cost items (that is, intermediate inputs, labor power skills, and fixed investment goods) and one-time expenses, 2) categorize direct (variable) and overhead (fixed) inputs, 3) determine the unit cost of output and depreciation, and 4) define (in the sense of accounting) profits and business incomes. One important implication of such accounting systems that have been developed by the business enterprise is that "fixed investment goods are not viewed as commodities to be sold on the market for revenue purposes; rather the going enterprise views them as essential non-commodities for maintaining the going plant whose historical value is considered a recoverable cost to be charged against revenue before determining business income" (Lee and Jo 2010, 4).

2.7 The banking sector is parasitic

Although the banking sector does not produce physical goods, it is essential in the monetary production economy since it helps producing physical goods and generating monetary profits by providing the business enterprise with necessary funds. Since its

establishment at the early stage of capitalism, its operation, and its survival and growth are fully dependent upon the non-financial business sector, the banking sector is thus parasitic. Moreover, it is "business" as opposed to "industry" in the Veblenian sense (Veblen 1904). In the contemporary capitalist economy the total value of final outputs in the banking sector (that is, the FIRE sector) is as large as that of the manufacturing sector.[8] As illustrated in the figure above, the demand for external funds should be determined after the business enterprise makes investment decisions and the decisions on dividend payouts and retained earnings. Since the supply of funds is not scarce but dependent upon the demand for funds, the financial market cannot be represented by a supply-demand mechanism which assumes the scarcity of funds and thereby the price of such funds as a scarcity index.

3 Financing Investment under Uncertainty and Instability

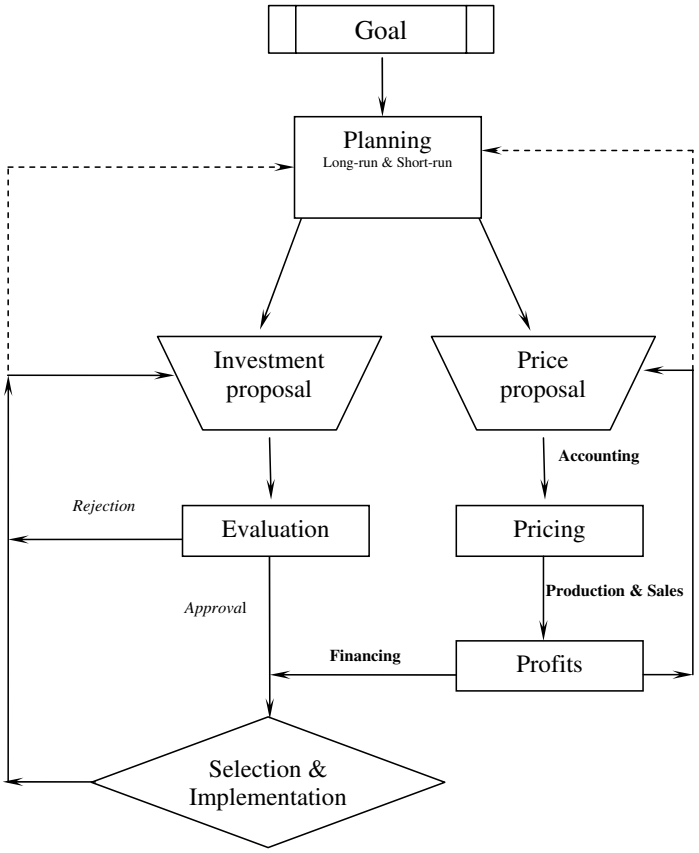
As discussed and illustrated above, financing decisions cannot be separated from other business decisions, related agency, and the banking sector. It is the business decision to produce surplus goods and services that animates the entire flows of inputs, money, and goods and services. Consequently, the social provisioning process is going and the life of enterprises, agents, and organizations continues. In this light, the business enterprise is a "controlling force in industry" and as a result of its routine and momentous business practices the business enterprise "set[s] the pace and determine[s] the direction of movements of the rest" (Veblen 1904, 2-3).

Let us look closely at the financing and investment decision mechanism within the enterprise. In order for the enterprise to achieve its long term goal, concrete strategic plans are to be put into place. Assuming the growth of the business enterprise in terms of sales, the market share, or capital accumulation is the ultimate goal, an appropriate investment project is proposed by the management and then is evaluated with regard to enterprise's earning capabilities that form the expectation of cash flows, of a rate of profits, and of sales. Management's perception of the potential riskiness of a proposed investment project varies. Riskiness is evaluated in terms of, for example, the failure of achieving a target return, a variation in returns, an uncertain payback period, uncertain market potential, entering an inexperienced area, or a success ratio (Petty, Scott and Bird 1975, 166). If expected cash flows exceed an expected risk, the approval of the proposed project is granted. Then the project is to be financed either internally or externally. If the project is to be financed through internally accumulated

[8] $4,515,756.2 mil. in the FIRE sector and $5,012,369.7 mil. in the manufacturing sector in 2008 in the US. Source: Bureau of Economic Analysis.

funds, the enterprise has to make strategic decisions on price. This is likely the case if product and financial market conditions are murky or perceived riskiness is rising. In the face of constantly changing market environment, the business enterprise needs to stabilize the market by administering prices, by holding reserved capacities, and by other means of market governance. These means lend themselves to generating cash flows that are crucial for survival and growth. To set the price it is necessary for the enterprise to have an accounting practice that measures and estimates reoccurring costs and one-time expenses as accurate as possible. Such an interdependent and sequential decision-making process is illustrated in Figure 2.

Figure 2: Pricing, Financing, and Investment



Most decisions are made under uncertainty. That is to say, "[b]usiness as usual" means "[u]ncertainty and retardation as usual" (Veblen 1934, 300). Thus "[w]hat man can do easily is what they do habitually, and this decides what they can think and know easily"(Veblen 1898, 195). Expectations with differing degrees direct decisions and are influenced by rules of thumb, animal spirits, habitual actions, or entrepreneurs' natural propensities which are in turn based upon commonly received conventions, norms,

and habits of thoughts (Keynes 1936; Kalecki 1971). This means that "[i]n a world of FU [fundamental uncertainty] there are no probability distributions that infallibly represent the future. The future is not "out there" waiting to be discovered; rather future depends on the actions we take now in light of our own fallible expectations of it" (Crotty 1996, 343). Therefore, uncertainty giving rise to instability requires acting agents to make an array of strategic actions that possibly reduce instability. One important means to do so is to keep accumulating internal funds (of course the actual amount of cash depends on actual demand by other agents).

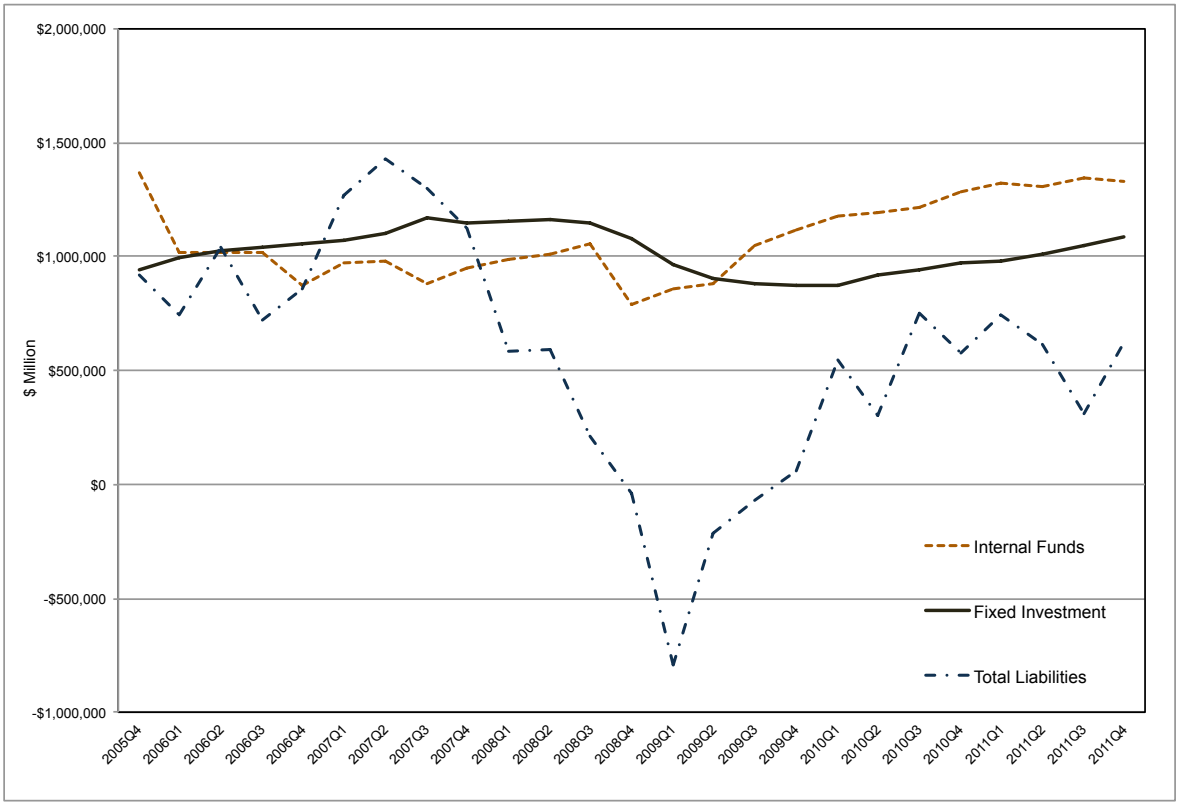
There is significant evidence that the business enterprise relies chiefly on retained earnings in financing investment. According to Corbett and Jenkinson (1997), internal financing is the main source of fixed investments in four advanced economies (Japan, Germany, UK, and US) during 1974-1990. German corporations, for instance, rely on internal finance by 78.9% (Japan 69.9%, UK 93.3%, and US 96.1%). Moreover, in spite of the difference in institutional arrangements like the development of capital markets, the corporate governance system, innovations, and the globalization of financial markets, the dominance of internal funds over external funds appears to be quite stable over the period in consideration. Similarly, Mayer (1988) finds that net external finance (loans, deposit, short-term securities) of physical investment during 1970-1985 is 42% (Japan), 37% (France), 25% (US), 12% (Germany), and 5% (UK). Brealey and Meyers (2000) also report that U.S non-financial corporations financed about 90% of their investment from internally generated funds in the 1990s.

More recently, in the last quarter of 2011 the proportion of internal funds to gross investment is 85% for U.S. non-financial corporations as a whole (internal funds to fixed investment is 122%). The magnitude of internal funds is relatively stable over the past six years notwithstanding the financial crisis, whereas total external funds are highly unstable and pro-cyclical (see Figure 3). Right after the beginning of the financial crisis in 2008, external funds declined sharply. Since then external funds have not recovered from the pre-crisis level. Insofar as the period after the 2008 crisis is concerned, the positive relationship between external funds and fixed investment is hardly discerned. That is, internal financing is the main source of investment especially when economy is in recession or economic instability is growing.

Enterprise financing behavior reflected in the data runs counter to received theories of finance and investment. Firstly, the Modigliani-Miller theorem posits that the source of financing (or capital structure) does not matter to the valuation of a corporation if it engages in a competitive (or efficient) capital markets with perfect knowledge (Modigliani and Miller 1958).[9] Aside from a set of problematic assumptions, in light

[9]By assumption, retained earnings are considered equivalent to the issue of stocks if the objective of management is to maximize the value of shares through the efficient capital market. The theorem thus implies that there is no difference between equity/internal financing and debt/external financing. Modigliani and Miller (1958) also take into account uncertainty in the context of corporation's

Figure 3: Internal Financing and External Financing in the US, 2005-2011



* Source: Board of Governors of the Federal Reserve System (data accessed April 25, 2012). Note: Total liabilities include bank loans, equities, corporate bonds, credit market instruments, commercial papers, etc.

of fundamental uncertainty and corporate strategic actions in the face of instability, the Modigliani-Miller theorem has no relevance. The theorem is not actually about enterprise financing decision mechanism. Rather, it is about how the efficient market determines financing since the rational corporate behavior would always result in the optimal capital structure (Eichner 1987, 486; Wood 1975, 40-1).

Secondly, a similar, if not the same, criticism applies to the heterodox macroeconomic account that the level of investment is determined by supply and demand prices of investment goods (Keynes 1936, 248; Minsky 1986, Ch.8). What is assumed here is external financing as the determinant of investment and thereby as the driving force of financial instability. Consequently, heterodox macroeconomists have paid little atten-

'rational' decision-making behavior. The concept of uncertainty is of course very neoclassical. In the model uncertainly is reduced a random variable (that is, the mean value over time of the stream of profits) with a probability distribution (265).

tion to internal financing, although they admit that both internal financing and external financing are complementary (Davidson 1972, 348; Lavoie 1992, 109). Arguably, such a 'financial (market) theory of investment' is not convincing to the extent that it bases itself on the Marshallian framework in which resource scarcity and marginal productivity are implied (Harcourt 2004; King 1995, 3), and that the business enterprise is reduced to its balance sheet (as in Minsky 2004, 98). These two reasons point to the lack of proper (that is, heterodox) microfoundations of macroeconomic theory.[10]

By contrast, the point made in the paper is that since instability is an inescapable part of capitalist economy, enterprises should make strategic decisions about internal cash flows so as to contain vulnerability in their business activities (that is, micro-instability) as well as the instability in markets and economy as whole (that is, macro-instability). As illustrated above, closely tied pricing-financing-investment mechanisms at the enterprise level imply that the business enterprise does not passively take prices (of intermediate capital goods, of surplus goods, and of financial assets), but actively makes prices so as to achieve its long term goals. Moreover, business enterprises organize themselves into various forms such as trade associations and cartels for the sake of governing the individual markets and, hence, reducing micro-instability. The state regulates markets to reduce micro- and macro-instability and thereby to protect private enterprises (Fligstein 1990; Prechel 2000; Jo 2011*a*).

It is also well known that the more the enterprise borrows from the banking sector, the more vulnerable to instability it becomes (Kalecki 1971, 105-6). This hypothesis needs elaboration. Small or newly established enterprises perhaps have no choice but to borrow external funds because they have limited internally generated funds (Carpenter and Peterson 2002). Big corporations are, however, not much constrained by the availability of both internal and external funds since 'megacorps' have accumulated enough capital in cash or in assets that can be quickly liquefied and since lenders are likely to grant loans to those already big corporations (Eichner 2000, 109; Lavoie 1992, 109). Thus it may well be that existing financial conditions evaluated by creditors along with other considerations such as conventions and social relations between creditors and debtors are also important factors in making finance decisions. Perhaps for most enterprises the strategic way to cope with radical uncertainty is to keep generating retained earnings as a cushion of safety, rather than relying on inherently unstable financial markets. In addition, enterprises are forced to control the market through cartels and trade associations, creating demand for products, innovating products and related process.[11] These means of market control of course are not sufficient but nec-

[10] As for heterodox microfoundations on which this paper is based, I recommend you to refer to Jo (2007), Lee (2011*a*;*b*), and Lee and Jo (2011). For the counter-argument to heterodox microfoundations from a heterodox macroeconomic perspective as well as an extensive theoretical and methodological review of the "microfoundations dogma", see King (2012).

[11] This implies that "free markets" do not exist as long as uncertainty and instability are matter of course in real life. Furthermore, the business enterprise has to set up a structure of a decision-making

essary to survive and growth. Such a purposeful action might end up with unintended consequences.

4 Conclusion

This essay started out with the clarification of uncertainty and instability that are central to heterodox economics. Fundamental uncertainty is the nature of socio-economic reality. It cannot be eliminated; nor can it be reduced to risk that is a subjective interpretation of outer conditions. Instability is the outcome of fundamental uncertainty through agent actions. The confusion between risk and uncertainty makes neoclassical economics incapable of providing the explanation of the 'fundamental' instability of the capitalist social provisioning process—or perhaps neoclassical economists are not concerned with the instability of markets, of the system, and of society. In radical contrast to neoclassical vision of economy, heterodox economists have explained instability inherent to the capitalist social provisioning process embedded in the hierarchical class structure of society. The class system implies socio-economic power of controlling the social provisioning process in favor of those who hold dominant power.

Putting uncertainty and instability in the context of the monetary social provisioning process enabled us to provide a new light on financing behavior of the business enterprise. Within the enterprise all key decisions are made technically, historically, and socially. In particular, fundamental uncertainty requires enterprises to make strategic decisions. The enterprise decision to produce social surplus animates flows of production, income, and funds in the economy. To continue and grow business over historical time, the enterprise makes investments. Investment requires financing. And financing requires pricing and accounting practices. These all enterprise actions are linked together in an indeterministic manner—that is, the monetary social provisioning process is open; all agents making a living the process are therefore make decision strategically and deliberately.

Then how does the enterprise finance investments? Statistical data support on the one hand that internally generated funds are the main source of investment especially when economy is in recession or economic instability is increasing. On the other hand, the positive relationship between external finance and fixed investment is hardly discerned. This finding has led to a critique of not only the Modigliani-Miller theorem but also the heterodox macroeconomic account of investment and finance that lays exclusive emphasis on external financing and the determination of investment in the financial

process so as to deal with changing socio-economic environment. That is, the reason that the business enterprise exists and flourishes is not simply because it is capable of transaction costs arising in market transactions.

market.

Alternatively, it is argued that the business enterprise makes all the efforts to reduce both micro-instability and macro-instability. In so doing, it is essential for them to generate internal funds, rather than relying on inherently unstable financial markets, in order to cope with instability and uncertainty.

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