

A Note on the Conception of Competition in Minsky's Financial Instability Hypothesis

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Abstract

Economists worldwide are rediscovering Hyman Minsky's Financial Instability Hypothesis (FIH). This interest has been prompted by the inability of macroeconomic frameworks across the theoretical spectrum to anticipate the onset of the Global Financial Crisis (GFC). As economists attempt to extend and develop this hypothesis, it is important to note that their ability to do so rests, in part, on the particular conception of competition they invoke in the process. This note briefly reviews the conceptions of competition and how they support – and limit – the predominant macroeconomic frameworks' ability to capture the dynamics of a capitalist market economy. Further, as the conception of competition within Minsky's FIH is more closely examined one finds that his own analysis of the underlying dynamics of the development of financial fragility could, in fact, be limited by the conception upon which it rests. The implications are then drawn.

JEL classifications: B3, E3, F4

1. Introduction

Hyman Minsky's Financial Instability Hypothesis (FIH) has been receiving renewed attention since the onset of the Global Financial Crisis (GFC). This is a mixed blessing for the heterodox economics community. On the one hand, the work of one of their own has finally been given the spotlight it deserves. On the other hand, elements of his work are being grafted onto mainstream macroeconomic frameworks, the foundations of which the FIH was not designed. As a result, the FIH runs the risk of being misinterpreted by the mainstream as an explanation for financial fragility and crisis.

This note will attempt to identify some of the recent misinterpretations and clarify their basis. The clarification process, though, yields an interesting twist. The ability of mainstream economists to graft elements of the FIH onto their frameworks can be attributed, in part, to a conception of competition which also underlies the work of Kalecki, which Minsky adopted as the basis for the FIH. This particular conception of competition yields static analyses, defined in terms of levels, shifting – only with difficulty – to growth models defined in terms of rates. The twist is that not only does mainstream have trouble grasping the dynamics of the FIH, the FIH itself may be limited in capturing the key dynamics of a financial crisis.

What if a more realistic conception of competition were to underlie the FIH? How would the dynamics of financial fragility change? The paper suggests how the FIH might change if it were to rest on a conception of competition associated with the tradition of Classical political economists. The implications are then drawn.

2. Mainstream (mis)interpretations of Minsky's FIH

In Minsky's Financial Instability Hypothesis (FIH) financial fragility is depicted as a process which evolves over time, the description of which begins in the trough of a business cycle. In a trough, a technological advance in some sector of the economy pushes the rate of profit on new investment in that sector above the economy-wide average. Investment in that sector is stimulated, and, in turn, supports the demand for output, and profitability, of other sectors. As profitability is restored economy-wide, the economy recovers and expands. However, as profitability is restored firms gradually become more optimistic in their assessments of future profitability. Their valuation of liquidity declines and they become less hesitant to use debt for financing new investment. Financial fragility develops in the economy, at both the micro and macro levels, as cash inflows from assets become increasingly destined to fulfill the debt service commitments generated by liabilities. Hence, an economy's resilience to a shock depends upon the degree to which financial fragility has developed at the time the shock occurs. An economy that is very fragile will have difficulty withstanding a shock, and financial instability – an event – will most likely occur in this region. The message is that the cyclical performance of the economy and the conditions conducive to crisis are endogenously generated by the collective behavior of individual firms with respect to their investment and financing decisions.

Recent examinations of how 'financial instability' (e.g., Nasica (2000)) and 'financial fragility' (e.g., Schroeder (2009)) are analyzed by mainstream economists reveal that their deterministic treatment of time limits their ability to incorporate the richness of Minsky's insights. The manner in which time is treated is dictated by the by the underlying theory of value and distribution - some variant of general equilibrium. However, there is another aspect to the mainstream interpretations of Minsky's FIH that warrants mention – the role of imperfect competition. At the heart of imperfect competition is an implicit acceptance that in an ideal world each market of a capitalist system is characterized by a

homogenous product, free entry and exit (perfect mobility), perfect information, and infinitely many, small agents – i.e., the bourgeois or mainstream conception of perfect competition. The implication is that firms are price-taking in the sense that equilibrium is characterized by uniform rate of return to factors of production and any discrepancy that may occur is immediately eliminated by the operation of perfect mobility and information. The result is that firms are rendered ‘impotent’ in the sense that any attempt to change the price of a unit of output to gain an advantage over its competitors is futile.

(Please see Stigler (1957) for a useful overview of the development of this conception.)

While imperfect competition seeks to make this conception of competition – and the theory that it supports - more realistic, it remains shaped by the logic that it seeks to improve, (Botwinick 1993, 25-27). One typically finds imperfection competition modeled in the mainstream literature as some form of general equilibrium with the addition of imperfections such as sticky wages, imperfect and/or asymmetric information, incomplete markets, and transactions costs. Correspondingly, recent statements in the mainstream economics literature suggest that FIH is predominantly concerned with some form of market failure – e.g., as a coordination failure (Hendricks, Kambhu and Mosser 2007), as over-optimism, manias and irrational exuberance leading to imbalances and exposure to a sudden loss of confidence (e.g., Berger and Udell 2002, Knight 2006, Borio 2007, European Central Bank 2009), and in the form of information frictions (e.g., Bank of England 2009). This would seem to suggest “the FIH is not a general theory but is institutionally, specific,” (Shostak 2007).

There is another conception of competition, though, and that is the conception which underlies the tradition of Classical political economy. This conception of competition envisions firms in a constant battle against workers, over working conditions (to increase productivity) and the growth of wages, and with other firms over market share in order to gain more control over the growth of profit. Accordingly,

firms are involuntarily forced to adopt techniques that lower unit cost of production, which raises the profit margin, and *possibly* the profit rate. “Thus, the key weapon in the competitive “battle” is the development of more efficient techniques of production, and the primary competitive strategy is to utilize these lower costs to ‘drive the others from the field’ by *actively lowering prices,*” (Botwinick 1993, 130; italics in the original). By increasing their profit margins, successful firms can generate funds for further innovation and investment and better absorb rising costs of production (especially wages), (Botwinick 1993, 133). Competition increases as firms increase in size through the concentration and centralization of capital. So, the conception of competition that one invokes will influence not only how one envisions the firms’ decisions regarding the adoption of new production methods, but also the macrodynamics derived from them .

There are non-mainstream, progressive economists who have incorporated the mainstream conception of (imperfect) competition, either wittingly or unwittingly, into their economic frameworks. They do so by arguing that capitalism has evolved from its competitive stage into one which is characterized by centralized and concentrated producers (e.g., the monopoly stage) and to argue that perfect competition is outmoded and imperfect competition is more realistic (Botwinick 1993, 127). The problem with this adoption is that the process of competitive adjustment associated with the mainstream’s conception of equilibrium price, as a static equilibrium state, and vision of the evolution of the capitalist system – along with their limitations - have been smuggled into the development of theories intended to be posed as alternatives to mainstream orthodoxy. The concentration of capital is taken as evidence of a form of capitalism that has become less competitive. (Please see Clifton (1977) and (1983) for elaboration of these points.)

One such progressive economist was Michal Kalecki, whose cost-plus price theory helped develop the foundation for (state) monopoly capitalism. Kalecki created a theory of value which rests on the concept of a mark-up price, defined as the cost of production increased by an increment that reflects the degree of monopoly power held by a firm. Specifically, the price formation of a firm is captured by the expression:

$$p = mu + np,$$

where p is the price set by the firm, p is the average price of all firms in an industry, u is the unit prime cost, and m and n are positive coefficients that reflect the degree of firm's power. As Kalecki explains, "(E)lasticity of supply and stability of unit prime costs over the relevant range of output is incompatible with so-called perfect competition," (Kalecki 1943, 45). A similar expression can be derived for a representative firm of an industry. The degree of monopoly increases as the number of firms within an industry decreases or as the concentration of capital increases. As the number of firms decreases (each growing in size), the competitiveness of the remaining firms declines – this is the mainstream's "quantity" conception of competition.

The reliance on imperfect competition limits Kalecki's analysis of business cycles in a number of ways. First, Kalecki's interest in "the determinants and consequences of the realization of current profits," suggests his analysis is static (Nell 1989, 160). Real profit (P) at a particular time is a linear function of lagged real investment (I), (Kalecki 1968, 54): $P = f(I_{t-w})$. Gross product or income is also a function of lagged investment plus a variable that is positive and constant in the short-term but which captures long-term influences. If investment rises, profit will also rise, with a lag, which in turn leads to a rise in the gross product. "... profits change proportionately less in the course of the business cycle than investment, and that the same is true of gross income in relation to profits," (Kalecki 1968, 63).

Investment in fixed capital is a positive function of lagged savings (S), the (lagged) time rate of change in

aggregate profits and a negative function of the (lagged) time rate of change in the stock of capital (K): $I_t = aS_{t-\tau} + b(\Delta P_{t-\tau}/\Delta t) - c(\Delta K_{t-\tau}/\Delta t) + d$, where d is a constant that reflects long-run changes associated with economic development, (Kalecki 1968, 98-9). Given the definition of profit, its relationship to output, and the determinants of investment one can shift this static system into a dynamic one by assuming that savings equals investment. A cyclical movement (devoid of influences of the long-term trend) is generated by using the assumption of equality between savings and investment to replace savings in the investment function with a lagged investment variable, i.e., by establishing a difference equation defined in terms of lagged investment. Further, Kalecki's specification of adjustment process in static terms (in terms of levels or changes in the levels), rather than their path (in terms of growth rates or changes in ratios), implies that the determinants of growth are exogenous to the system – a static result. Within the tradition of Classical political economists, savings and investment (and, hence, supply and demand) adjust in a manner in which they gravitate towards each other, but rarely do they come into exact equality (Shaikh 1992). In the last variant of Kalecki's business cycle theory, he attempts to knit the cyclical and trend elements of a market economy, in part, by giving a role to the incremental rate of return or profit on new investment; however, this role was not well-developed. (See (Courvisanos 1996, 14-20) for a neat overview of the three variations of Kalecki's analysis of business cycles.)

A second way in which the conception of competition limits Kalecki's analysis is through his specification of capital types. His business cycle theory lacks a clear distinction between circulating capital and fixed capital. This sets up the possibility of conflating the influences and effects of the relationship between supply and demand (inventory cycle) and supply and capacity (fixed investment cycle). This is important since the signal for the expansion of output is excess demand, by using existing fixed capital more intensely and increasing the amount of circulating capital, whereas the signal for the expansion of capacity, by investing in new fixed capital, is a higher than normal capacity utilization rate. So, for

instance, if excess demand is positive, this stimulates firms to increase the circulating capital relative to fixed capital (i.e., use fixed capital more intensively); fixed capital is typically assumed to be constant or slowly changing. This increases output which is then realized, and results in higher profit - provided there is little, if any, downward pressure on price. At the start of an upswing, investment in circulating capital will lead to higher profit as output expands. If capacity utilization is such that there is higher than normal use for an extended period of time, then firms are stimulated to add new fixed capital, i.e., productive capacity expands. The lack of distinction between these two forms of capital 'abstracts from the possibility that one of these two elements moves faster than the other,' compromising the analysis of stability (and instability), see (Shaikh 1992) for more on this point.

The conception of competition also influences the choice of technique. Under the mainstream conception, the choice of technique rests on whether it improves the general rate of profit. As Nell (1989) notes, "... Kalecki's criterion for choosing the best technique involves maximizing an implicit rate of return." The decision to invest by a firm is voluntary. The decision, as Kalecki states, depends upon "whether changes in the economic situation take place which extend the boundaries set to investment plans by those factors," where 'those factors' are market saturation of the firms' products or " 'increasing risk' and limitations to the capital market," (Kalecki 1968, 96). Again, the decision to invest depends positively upon changes in profit, positively upon the change in profit per unit of time, and negatively upon the increment to fixed capital per unit of time. Changes in the economic situation are attributed, mainly, to innovation and invention – the appearance of which cannot be anticipated. Here, too, the conception of competition ultimately limits Kalecki's analyses of the business cycle. Under the classical conception of competition, the choice of technique rests on whether it improves the profit margin, with the implication that the techniques which improve the profit margin in the short term have the tendency of reducing the general rate of profit in the longer term. The distinction between the

profit margin and rate rests on the distinction fixed and circulating capital, see (Shaikh 1978 and 1989) for more on this point. This conception of competition yields dynamics which are endogenous to the analyses of cycles and trends.

3. Implications for Minsky's FIH

“The financial instability hypothesis identifies profits, determined as Kalecki shows, as a cash flow that does or does not validate past financial commitments: it integrates Kalecki’s vision of the dynamic determination of profits with the capitalist institutional fact of a liability structure inherited from the past that commits current and future profits,” (Minsky 1982a, 115 fn 15.)

The Financial Instability Hypothesis reveals its Kaleckian roots in the way that it incorporates market power of firms as a reflection of imperfect competition and in how it models investment. With respect to imperfect competition, Minsky describes how firms attempt to establish prices which enable them to generate cash flows in excess of operating costs and that ability to control these mark-ups depends on their market power (see, for instance, (Minsky 1986, 142)); this ability is crucial to creating a ‘margin of safety’ for a firm. With respect to investment, Minsky (1977) argues that the investment decision is a key determinant of aggregate activity, and investment is a function of the demand price of investment goods, supply conditions of investment goods, and conditions in the financial markets. This echoes Kalecki’s view of how changes to the economic situation influences the boundaries set to investment plans. Further, “the money value of investment over a period is the basic determinant of money profits over that same period,” (Minsky 1982a, 7). In fact, “if with Kalecki, we assume that workers spend all they earn on consumption and profit receivers do not consume, we get $P = I$ (profits equal investment). This is nothing more than a restatement of $S = I$ (savings equals investment),” (Minsky 1982a, 193).

The FIH also lacks a clear distinction between fixed and circulating capital. In describing the process of capitalist accumulation, for instance, Minsky (1982b) recognizes investment as pertaining to fixed capital and inventories. There is little recognition of investment in circulating capital except to assume to exclude or to ignore 'nonlabor inputs.' This naturally leads to an analysis which is largely devoid of the impacts of excess demand or of prolonged pressure on capacity utilization, important signals for the expansion of output and investment, respectively. Not only are the differences in the speed with which these variables adjust overlooked, but the failure to distinguish the types of investment effectively assumes away various aspects of the production process (see (Shaikh 1989) for more on this point in the context of Kalecki's work).

The lack of an explicit analysis of the production process means that changes in the level of profit are not well-defined. The level of profit is defined to be dependent on investment; however, there has always been some dissatisfaction in the way that the dynamics of the upper turning point has been described and modeled. Minsky's explanation as to why cash flows tend to soften near this point is mainly attributed to the influence of the interest rate. As the interest rate rises, the price of investment goods increases and the prices of capital assets fall so that "(t)he thrust towards ever higher profits due to increasing investment reflecting ever higher leverage ratios will cease," (Minsky (1980)). Without the dynamics of the productive or real sector, there is limited scope for an explanation that incorporates an understanding how profit – and, in particular, the profit rate on new investment - may endogenously change and help generate the upper turning point and a bout of financial instability. Reliance on the mark-up concept to establish profit means that sudden shortfalls in profit are attributed to something outside or exogenous to the system; it takes time for a change in market power to be reflected in the mark-up. This suggests that the influence of the interest rate near the upper turning point of a cycle,

and its involvement in the generation of financial fragility and instability, although important, may be overemphasized.

If the Kaleckian underpinnings compromise the FIH's ability to analyze stability (and instability), what are some of the implications for Minsky's FIH if were to rest on the conception of competition associated with Classical political economists? First, there would be scope to more fully incorporate the dynamics stemming from the productive or real sector. In particular, the dynamics of competition between capitals both within and across industries, as described by the classical political economists, can be introduced to provide a way to more fully grasp both the determination of the general rate of profit and the rate on regulating capitals. This would suggest a shift in how an analysis of the cycle is conducted - from levels to rates. Further, the relationship between the cyclical and trend behavior of a market economy could be more fully developed, and enhanced with a clarification of the different types of investment and the roles that they play in the cycle. It turns out that the general form of Kalecki's investment function is the same as that of Classical political economists, but that the dynamics underlying the determinants are different. In particular, the conception of competition of the latter make clear that capitalists are compelled to invest in order to adopt innovations, inventions and re-organization production processes in an effort to reduce the unit cost of output and to increase profit margin, risking a lower future profit rate, especially if prices begin to soften for their products. The determinants of the investment function of the Classical political economists also provide a more holistic link between the real sector and financial markets via the relationship between the incremental and stock market rates of return; please see Shaikh (1989 and 1998) for more on these points in the context of Kalecki. For the purposes of detecting the evolution of financial fragility and assessing an economy's susceptibility to a bout of instability, the shift away from the concept of imperfect competition would

open up an opportunity for the profitability of new investment to help explain and anticipate the onset of the upper turning point of a cycle, rather than placing the main thrust of the explanation onto the rate of interest.

4. Conclusion

The future direction of the FIH's development hinges on the recognition of the methodology that underlies it. As originally stated, there are a number of features that its methodology shares with the mainstream macroeconomic frameworks. This puts the FIH at risk of having certain elements – such as euphoric expectations - grafted onto the mainstream frameworks in order to 'freshen' their analyses of causes and attributes of financial (in)stability. However, as with Keynes' *General Theory*, shifting the elements onto frameworks that they weren't intended for simply opens the door for the FIH to be trivialized and swept away as a 'special case.' Paying attention to methodological underpinnings would help avoid such trivialization.

Upon closer, albeit it brief, examination of underlying methodology of the FIH yields aspects, such as an expanded role for profitability, which, if addressed, could enhance the ability of the FIH to explain the onset of financial crises or the upper turning point of a business cycle – i.e., to provide a more satisfying explanation of a phenomenon that eluded both Kalecki and Minsky.

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