Institut für Makroökonomie
und Konjunkturforschung
Macroeconomic Policy Institute

Working Paper

5/2009

A Theory of Minsky Super-Cycles and Financial Crises

Thomas I. Palley

June 2009

Hans-Böckler-Straße 39
D-40476 Düsseldorf
Germany
Phone: +49-211-7778-331
IMK@boeckler.de
http://www.imk-boeckler.de

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Abstract

This paper argues that Hyman Minsky's financial instability hypothesis weaves together a medium term Keynesian approach to the business cycles in the spirit of Samuelson (1936) and Hicks (1950) with long cycle thinking of economists such as Schumpeter (1939) and Kondratieff. Post Keynesians have devoted considerable attention to the medium term dimension of Minsky's thinking. The current paper concentrates on the long swing dimension and introduces the idea of "Minsky super-cycles." It is the super-cycle that ultimately permits financial crisis. Whereas financially driven business cycles occur every decade, financial crises occur over longer durations reflecting the longer phase of the super-cycle.

Keywords: Minsky, business cycles, financial instability hypothesis

Thomas I. Palley
Economics for Democratic & Open Societies
Mail@thomaspalley.com

May 2009

Paper prepared for a conference on "The Political Economy of Central Banking" held at Ryerson University, Toronto, Canada, 27 – 28 May, 2009. My thanks to conference participants for their helpful comments. All errors are my responsibility.

I Introduction

The current economic crisis has been widely viewed as vindicating the work and insights of the late Hyman Minsky. This vindication was celebrated on the front page of the *Wall Street Journal* (August 18, 2007) at the very beginning of the crisis in an article titled "In Time of Tumult, Obscure Economist Gains Currency. Mr. Minsky Long Argued Markets Were Crisis Prone; His Moment has Arrived."

This paper seeks to explore and extend the work of Hyman Minsky by surfacing ideas and themes that are clearly present in Minsky's work but have not been given enough attention by economists, including those (almost exclusively Post Keynesians) who have recognized his contribution. While there have been many attempts to formalize his work, those attempts tend to treat Minsky as a narrow theorist of the financial business cycle rather than a process theorist of financial capitalism.

This paper argues that Minsky needs to be understood not only through a conventional medium-term business cycle lens, but also through the lens of long term swings. Minsky's schema embodies both types of dynamic. In a sense, his financial instability hypothesis can be interpreted as weaving together the medium term Keynesian dynamic embodied in the Samuelson (1936) – Hicks (1950) approach to the business cycle with the long cycle thinking of economists such as Schumpeter (1939) and Kondratieff.

Post Keynesians have devoted considerable attention to the medium term dimension of Minsky's thinking that operates through his stages of financing (Hedge – Speculative – Ponzi) schema. The current paper concentrates on the long swing

dimension implicit in Minsky's thinking and relates that long swing process to the conventional medium term business cycle. These long term swings are termed "Minsky super-cycles" and it is the super-cycle that ultimately permits financial crisis. Whereas financially driven business cycles occur every decade, financial crises occur over longer durations reflecting the longer phase of the super-cycle.[1]

II Minsky as process theorist

The foundation of Minsky's thinking is his construction of the economic process. That makes Minsky a theorist of capitalism who theorized it in terms of "process". This approach to economics put him at odds with modern economics that constructs capitalism in terms of "equilibrium" and it helps explain why Minsky was over-looked by much of the economics profession.

The equilibrium approach looks at the economic problem as one of establishing efficient market allocations. To the extent dynamics enter, it is with regard to whether those equilibrium allocations are stable or unstable. Viewed from the equilibrium perspective, process issues (i.e. dynamics) take a backseat and are an add-on to the economic problem.

For Minsky, process is the issue and his theory of process can be summarized as: "Success breeds excess breeds failure." Such a construction of the economic process is one of evolutionary instability. Evolutionary factors are present because the economy evolves through stages that breed successive stages. Instability is present because the

[1] The theoretical view developed in this paper complements Wray's (2008) case study analysis of the current financial crisis, the seeds of which he traces back to the early 1970s and before.

system periodically ends in failure and collapse, which is why Minsky termed his approach the financial instability hypothesis.

Minsky's construction of the capitalist economic process recognizes features that are both general and historically specific. The generality of the "success breeds excess breeds failure" process is captured in Minsky's view that "The more things change, the more they remain the same (Minsky, 1993, p.2)." The historical specificity is captured by his accompanying view "One can never step in the same stream twice (Minsky, 1993, p.2)."

The current financial crisis fits the schema. Its specific details are different from past financial crises but its underlying logic and evolution are structurally similar. Financial capitalism is governed by a general process that is enduring, but the landscape through which the process travels is forever changing and therefore historically specific.

III Minsky as cycle theorist

Minsky's financial instability hypothesis can be thought of as resting on two different cyclical processes, as illustrated in Figure 1. The first process is labeled the "basic Minsky cycle", while the second process is labeled the "super-Minsky cycle". The basic cycle is widely recognized and rests on the evolution of financing arrangements through successive stages of hedge, speculative, and Ponzi finance. The super-Minsky cycle is less well recognized, though it is fully articulated in a paper co-authored with Piero Ferri (Ferri and Minsky, 1992) that deserves far greater recognition. Unfortunately, the critical arguments in that paper were omitted in Minsky's (1992) brief article titled "The Financial Instability Hypothesis" in which he summarized his theory.

Figure 1 here

The basic cycle captures the phenomenon of emerging financial fragility as reflected in agents' balance sheets and financing arrangements.[2] The basic cycle is illustrated in Figure 2 and it involves the familiar process of evolution beginning with hedge finance, passing through speculative finance, and ending with Ponzi finance. The basic cycle operates at the level of the individual enterprise.

Figure 2 here

Much has been written on the basic cycle, and Minsky (1992) carefully defined its stages. "Hedge finance units are those which can fulfill all of their contractual payment obligations by their cash flows (Minsky, 1992, p.7)", and it tends to be associated with greater weight of equity financing in the liability structure. "Speculative finance units are units that can meet their payment commitments on "income account" on their liabilities, even as they cannot repay the principle out of cash flows. Such units need to "roll over" their liabilities (Minsky, 1992, p.7)." Lastly, "for Ponzi units, the cash flows from operations are not sufficient to fulfill either the repayment of principle or the interest due on utstanding debts by their cash flows from operations. Such units can sell assets or borrow (Minsky, 1992, p.7)."

There are many formal models of the basic Minsky cycle. These include (to list a few) Foley (1987), Semmler and Franke (1991), Gallegati and Gardini (1991), Skott

[2] For Minsky, these agents were business as he gave little attention to household borrowing.

(1994), and Delli Gatti et al. (1994). All of these models emphasize the emergence of gradually more fragile corporate balance sheets that are marked by either reduced liquidity or higher debt-equity ratios. These developments give rise to balance sheet congestion that eventually strangles investment activity. This triggers an economic downturn that generates a de-leveraging process which eventually creates the conditions for another upswing. Palley (1994, 1997a) presents a model that focuses on households and consumer debt, and in that model it is the growing burden of debt service payments from free-spending debtor households to thriftier creditor households that eventually curtails the expansion.

Minsky's theory of the basic cycle involves important psychological influences. The move between financing stages is in part driven by agents becoming progressively more optimistic, and that optimism manifests itself in increasingly optimistic valuations of assets and assessments of revenue streams, combined with increased willingness to take on more risk in the belief that good times are here forever. This optimistic psychology afflicts both borrowers and lenders, and not just one side of the market. That is critical because it means market discipline is removed.

Historically, long business cycles have tended to generate talk of the "death of the business cycle." In the 1990s there was talk of the "new economy" that was supposed to have killed the business cycle by inaugurating a period of permanently accelerated productivity growth. The 2000s saw talk of the "Great Moderation" whereby central banks had tamed the business cycle through improved monetary policy based on improved theoretical understanding of the economy. This talk is not incidental. Instead, it

constitutes broad evidence of the basic Minsky cycle at work. Improving times generate increased optimism, and that optimism afflicts all including regulators and policymakers. For instance, Federal Reserve Chairman Ben Bernanke (2004) declared himself a believer in the Great Moderation hypothesis.

The basic Minsky cycle is present in every business cycle and operates at the enterprise level. However, it is complemented by the super-Minsky cycle that works over a period of several business cycles and operates at the system level. The super cycle is a process of transforming business institutions, business conventions, and structures governing the market. These structures are critical for ensuring stability of capitalist economies and Minsky (Ferri and Minsky, 1992) called them “thwarting institutions” in that they thwarted instability.

The process of erosion and transformation takes several cycles, which is why the super-cycle is a long phase cycle whereas the basic cycle is a shorter phase cycle. However, both cycles take place simultaneously. Figure 3 illustrates the stages of the super-Minsky cycle. Full-blown financial busts that threaten the survivability of the economy only happen “once a generation” when the super-Minsky cycle has had time to erode the economy’s thwarting institutions. In between these busts only the basic Minsky cycle is visible.

Figure 3 here

The super-Minsky cycle works over a period of several basic Minsky cycles. This pattern of development is illustrated in Figure 4, which shows a gradually evolving cycle

characterized by potential for greater amplitude. This evolving amplitude is accompanied by weakening of thwarting institutions which is represented by the widening and thinning of the bands determining the system's floors and ceilings. Eventually the thwarting institutions become sufficiently eroded and the embrace of financial excess is sufficiently deep that the economy experiences an uncontained cyclical bust.[3] Once a full scale bust occurs the economy enters a period of renewal of thwarting institutions – which reasonably describes the current period (2009) when there is talk of renewed regulation.

Figure 4 here

Figure 4 shows the case where economy undergoes cycles of widening amplitude prior to the bust. However, there is no requirement for this. Instead, the economy may have cycles of roughly unchanged amplitude but the thwarting institutions gradually weaken until there eventually comes a time when they are unable to contain the cycle. This alternative case is shown in Figure 5.

Figure 5 here

Analytically, the full Minsky system can be thought of as a combination of three different approaches to the business cycle. The basic dynamic rests on Samuelson's (1936) multiplier – accelerator representation of the business cycle. The thwarting institutions involve floors and ceilings and link Minsky's thinking to Hicks' (1950)

[3] Keynesian stabilization policies are themselves a thwarting institution. Ironically, by helping stabilize the economy, these policies can obscure the emergence of instability in other corners of the economy.

construction of the trade cycle. The super-cycle aspect is then captured by shifting and weakening of floors and ceilings, which provides links to economists such Schumpeter (1939). The thwarting institutions are explicitly present in the floors and ceilings, but they may also be present in the coefficients of the multiplier - accelerator model which determine the responsiveness of economic activity to changes in such variables as expectations and asset prices. Minsky (see Delli Gatti et al., 1994) referred to all three types of cycle and his own early formal modeling (Minsky, 1957, 1959) made use of these modeling approaches.

However, the problem with formal modeling is it imposes too deterministic a phase length on what is in reality a historically idiosyncratic process. Adding stochastic disturbances jostles the process but does not adequately capture the idiosyncratic process Minsky described as "One never steps in the same stream twice". Modeling, which is the modern economist's obsession, may simply not be up to the task, and Minsky realized this; "A model *per se*, however, is nothing else than a device for organizing thoughts. When deemed necessary, our description of financial developments will be richer and more detailed than that incorporated into the model (Delli Gatti et al, 1994, p.4)."[4]

IV Details of the Minsky super-cycle

The super-Minsky cycle can be thought of as allowing more and more financial risk into the system. The cycle involves twin developments of "regulatory relaxation" and "increased risk taking" that is shown in Figure 6. The process of regulatory relaxation can

[4] Models should be judged on the thought organizing and thought illumination criterion. The trouble is they are increasingly judged on whether they are a "mirror of reality". Not only is the creation of such a mirror an impossible task, making it the criterion for modeling results in dismissing "thought organizing" modeling while simultaneously encouraging misguided "mirror of reality" modeling. This tendency has likely worked to keep Minsky's ideas out of mainstream economics.

be identified with increasing the supply of risk, while the process of increased risk taking can be identified with increases of both supply and demand for risk.

Figure 6 here

The process of regulatory relaxation and increased supply of risk has three dimensions. The first is regulatory capture. Thwarting institutions limit the activities of financial institutions. If economically binding, these limitations reduce profits. That creates an economic incentive to capture regulatory agencies to weaken regulations. Such a process of capture has clearly been evident over past 25 years, and is now even acknowledged by mainstream economists (Johnson, 2009). Wall Street has stepped up its lobbying efforts and there is a revolving door between Wall Street on one side and government on the other – in particular the Federal Reserve, the Treasury, and the Securities Exchange Commission.

The second dimension is regulatory relapse. Regulators are human and part of society, and like investors (see below) are subject to memory loss and reinterpretation of history. Thus, regulators forget the lessons of the past and buy into the rhetoric of death of business cycle. The result is willingness to weaken regulation on grounds that things are changed and regulation no longer needed. This shift in policy may be supported by developments in economics driven by similar social forces, which provide an intellectual justification for such regulatory change.

The third dimension is regulatory escape. Thus, the supply of risk can increase through financial innovation that escapes the regulatory net because it was not conceived of when regulation was established. Innovation causes activity to spill outside the domain

of thwarting institutions, and addressing innovation requires constant updating of regulation. However, the forces of regulatory capture and regulatory relaxation work against regulatory updating by challenging the will to maintain a comprehensive coherent system of regulation.

These considerations of regulatory relaxation raise two vital points. The first is that the process of regulatory relaxation is intimately connected to ideas and ideology. As ideas, ideology, and perceptions change, attitudes toward regulation (i.e. deregulation and the need for new regulation) will also change. That means the deep social forces driving ideas, ideology, and perception are part of the mechanism driving the Minsky super-cycle.

The second important implication concerns regulatory policy. Effective regulation is a dynamic game played between market and regulator, and the market always seeks to escape regulation. If regulation is economically binding in the sense of limiting activities market participants would otherwise undertake, markets are likely to eventually innovate around the regulations. In effect, good regulation inevitably sows the seeds of own destruction by providing an incentive to innovate (Palley, 1998, p.7), and it is this microeconomic logic that lies behind the Minsky super-cycle. From a policy perspective, this means those who fatalistically claim regulation is useless because it will be avoided are entirely wrong. Good regulation sets up an incentive to avoid it, and regulation that does not do so is economically non-binding. The policy challenge is to make avoidance difficult and to update regulation once the market figures out how to avoid existing

regulation. However, the proclivity to avoidance is not a valid argument against regulation.

The process of increased risk taking also involves three dimensions. The first is financial innovation that provides new products which allow more risk-taking. Over the past two decades the household sector has been introduced to home equity loans, lower mortgage down-payments, and a shift in pension arrangements from defined benefit plans to defined contribution plans where the ultimate payment depends on investments made. Financial markets have also created and expanded the use of a host of new products that facilitate financial risk-taking. These include securitization and tranching of securities, derivatives, and options. All of these products allow households, business, and financial institutions to take on new patterns and changed levels of financial risk.

A second dimension of increased risk-taking is memory loss and culture change that increases the demand for risk.[5] The passage of time contributes to forgetting of earlier financial crisis and that makes for a new willingness (taste for) to take on risk. The experience of the Great Depression permanently reduced the demand for equities among the 1930s generation, but baby boomers who never experienced the depression have been enthusiastic stock investors.

The phenomenon of memory loss is evident in the gradual decline and disappearance of the so-called "equity premium" – the excess return to stocks relative to

[5] The changed in demand for risk resulting from memory loss, culture change, and data hysteresis link with Dequech's (1999) description of decision making under uncertainty involving issues of "uncertainty aversion" and "uncertainty perception", both of which are socially mutable.

bonds. As preferences for stock investing have been re-built, that has driven up the price of stock and reduced its relative return.

Another related factor is culture change, which may rely on memory loss as one of it drivers. This phenomenon is evident in the development of a “greed is good” culture epitomized by fictional character Gordon Gecko in the movie, Wall Street. Similarly, investing has developed into a new form of entertainment and is reflected in phenomena like day trading and emergence of TV investment adviser personalities like Jim Cramer. Finally, culture change is evident in attitudes toward home ownership which is now as much interpreted as an investment opportunity as provision of a place to live.

The third and final dimension of increased risk taking is data hysteresis, which is an inevitable feature of Minsky’s view that the structure of the economy is continuously changing. That process of change inevitably generates data hysteresis. Crisis is followed by a period of rebuilding of risk thwarting institutions that reduces risks and changes the data outcomes the system generates. Thereafter, there follows a long period marked by an uneven process of regulatory capture, regulatory relapse, regulatory escape, financial innovation, memory loss, and culture change. These developments mean the data generating process is subject to continuous change so that time series analysis becomes a wholly inappropriate guide for action. However, that does not stop people using such analysis.

This problem is illustrated in Figure 7 that shows stylized risk return trade-offs. As appetite and opportunities for risk-taking increase because of memory loss, financial innovation, deregulation, etc., agents move up the risk-return schedule. However, they

are blind to the fact that the schedule has shifted because of changed structural conditions – including increased risk-taking by all. Most importantly, this blindness applies on all sides of the market, including regulators, so that market discipline is an ineffective protection against the build-up of positions that ultimately generate crisis.

Figure 7 here

V Minsky's broad intellectual appeal

Minsky's thinking about the economic process has broad and wide appeal, making it attractive to many different schools of thought. The Minsky super-cycle describes the economy as passing through stages in which thwarting institutions are eroded and the process eventually ends in crisis.

This emphasis on institutions makes it consistent with institutionalist economics. The "stages plus crisis" framework also resonates with the social structures of accumulation (SSA) school articulated by neo-Marxists such as (see for instance Kotz et al., 1994). It also resonates with the French regulationist school (see for instance Boyer and Saillard, 2002) that sees capitalism as organized by different regimes of production.

Minsky is a natural complement to both SSA and regulationist. First, Minsky sharpens the focus on finance which until recently was relatively under-emphasized in SSA and regulationist thinking. Second, Minsky can be thought of as introducing a "double stage" approach that includes both long and short stages. Viewed in this light, regimes can be thought of as defining the long stage. Within that long stage, regimes

undergo short stages of evolution (success breeds excess breeds failure), and these short stages eventually end in crisis that becomes the occasion for creation of a new regime.[6]

Minsky's construction of the emergence of different of stages of the cycle also fits neatly with an evolutionary approach to economics. Additionally, the role of changing psychology and expectations in driving the shift from hedge to speculative to Ponzi finance links Minsky to the new field of behavioral economics in which psychological factors and biases play a critical role.

Furthermore, the Minsky super-cycle is also consistent with the concept of hysterisis that has been emphasized by Post Keynesians (see Setterfield, 1997a, 1997b). For Minsky, history is a one way train and experience changes beliefs, understandings and priors in a way that cannot be reversed. Thus, the process of memory loss regarding prior crises is fundamentally hysteretic. So too is the changing pattern of data that results from changing behavior and changes in the institutional structure. This emphasis on history and the connection to hysteresis also connects with the ergodic – non-ergodic distinction that has been raised by Davidson (1991) and which challenges the legitimacy of using probability theory to describe the likelihood of realizing different states of the world.

VI Minsky and the new Keynesians

Minsky was an avowed Keynesian and his approach is consistent with Keynesian economics that takes as its point of intellectual departure that capitalist economies are

[6] Crisis is different from a deep recession. Crisis is a situation in which a regime is so beset by its internal contradictions that it can no longer function in a politically and socially acceptable fashion, and that failure brings forth need for a new regime. A new regime may emerge quickly and smoothly, or it may only emerge after an extended period of conflict, stagnation, and instability.

susceptible to crisis and are not automatically self-adjusting. New Keynesians (Bernanke et al., 1996, 1999; Kiyotaki and Moore, 1997) have also tried to incorporate Minsky's thinking into their models through the notion of a financial accelerator. The logic is changes in asset prices increase the value of collateral enabling increased borrowing that raises debt and ultimately gives rise to balance sheet congestion that causes a downturn.

The new Keynesian financial accelerator succeeds in creating a financially driven business cycle but it is fundamentally different from Minsky's financial instability hypothesis. That is because New Keynesian models are philosophically inconsistent with Minsky. Whereas Minsky's approach is one of evolutionary instability, the new Keynesian approach is one of stable equilibrium, which by definition cannot incorporate the financial instability hypothesis.

Evolutionary models are inevitably open-ended in the sense that agents do not know where they are going until they end up there. In contrast, equilibrium models are closed and agents know where they are going to end up. Agent based equilibrium models therefore preclude incorporating the evolutionary aspect of Minsky's thinking.

Likewise, instability is not possible in new Keynesian models with rational agents who form expectations that peer into the future. These agents would recognize the economy is headed on an unstable path, and immediately bring those implications to the present forcing in place alternative stable arrangements.[7] In the new Keynesian model the structure of the world is known and future outcomes can be predicted subject to the

[7] An alternative resolution is that of jumping to the stable saddle path solution. That trick is implausible in terms of what people in the real world understand about the economy, and it also does nothing to address the fundamental issue which is about the character of the economic process.

caveat of white noise disturbances. This new Keynesian construction of the economic process fundamentally contradicts Minsky's construction which is about the gradual evolution of instability that agents are blind too yet is inherent in their behaviors. This is not a matter of irrationality or bounded rationality. In Minsky's world agents can be completely rational but their actions cause the economy to evolve in a way that predictably tends to instability, but agents do not recognize this.

The implication is that the neo-classical agent based rational expectations modeling methodology that now dominates macroeconomics is methodologically incapable of representing Minsky's financial instability hypothesis. This is because neo-classical methodology has in mind a different construction of the economic process – one that is stable and fixed. Cycles can be generated by adding mechanisms like the financial accelerator, but Minsky is about more than cycles. Likewise instability can be created by adding stochastic disturbances – "shocks" – but that completely misrepresents Minsky's instability which is rooted in evolutionary process. In the neo-classical world crises can only occur because of shocks: hence the emphasis on fat tailed probability distributions, perfect storms, black swans and other metaphors of chance. That is a fundamentally different construction of crisis from that contained in Minsky's financial instability hypothesis.

Square pegs cannot fit in round holes. Minsky is an intellectual square peg. Neo-classical rational expectations macroeconomics is an intellectual round hole. If the current financial crisis is indeed a vindication of Minsky's view of capitalism, then it

means that neo-classical rational expectations construction of macroeconomics is fundamentally flawed as a description of capitalism.

VII The Minsky process as post-modernist meta-process

Section II described Minsky as a process theorist. The Minskyian construction of the economic process in terms of "success breeds success breeds failure" can be applied more widely than just the financial business cycle.

For instance, one application might be to popular understandings of unions and their economic effects. In the period after the great Depression trade unions were seen as a necessary institution for correcting excessive income inequality generated by the market and which threatened to undermine the system. Over time, as unions succeeded in bringing down income inequality people may have begun to believe that the problem of income inequality was permanently solved so that unions were no longer needed. Consequently, public support for unions may have declined, causing unions to shrink, and the problem of income distribution to return.

A similar logic can be made regarding the economics of Keynes and Keynesian economic policies. After World War II, Keynesian economics emerged triumphant, with the New Deal and the war having shown how demand management could restore full employment. This triumph was followed by a twenty-five year period in which the economy experienced historically fast growth, stable conditions, and low unemployment. However, that success may have led people to believe that the economic problem was permanently solved and to forget the history behind this success. This memory loss may in turn have contributed to the retreat from Keynesianism and fostered the return of

laissez-faire understandings and economic policy.[8] In effect, Keynesian success at taming the economy helped create the space for re-birth of instability.

The financial instability hypothesis and the evolution of attitudes about unions and thinking about Keynesianism all embed a common Minskyian meta-process whereby initial success causes changes that in turn undermine the initial success. In many regards that meta-process is a fundamentally post-modern construction. People's understanding of the economy evolves through time and people are involved in the making of the outcomes that change their understandings. At the same time their initial understanding contributed to those outcomes. Thus there is a feedback loop that runs as follows: initial understandings → outcomes → new understandings

This feedback loop is fundamentally reflexive. It is central to the Minsky super-cycle, and it has also been emphasized by the financier George Soros (1987). It means that the world is forever in flux and evolving, which is the opposite of an equilibrium construction of the world.

A second feature of a post-modernist perspective is that it is impossible to stand outside of society and the economy to establish an objective detachment. This explains why it is so difficult to recognize the Minsky super-cycle while it is taking place - "under our noses" so to speak. When the boom is on borrowers, lenders, regulators, and

[8] The return of laissez faire thinking was also likely encouraged by the Cold war which placed the ideology of free markets in conflict with the ideology of central planning. As part of winning the debate over economic ideology, the capacity of markets was over-stated and their limitations understated (Palley, 1998, p.11-12).

policymakers get caught up in its optimism. So too do economists. That is why market discipline fails, and it is also why regulation is prone to failure

Even more importantly, everyone – including economists – gets caught up in the long-wave social and political developments that contribute to driving the super-cycle. Thus, when society moves to the left and becomes more favorable toward policies of regulation, economists will also tend to move to the left. When society moves to the right in a direction favoring deregulation and *laissez-faire*, economists will also tend to move in that direction.

Such a description of economists and economic knowledge is post-modern and at odds with the conventional view. That conventional view maintains economists stand outside of society as detached objective observers, as illustrated in Figure 7. A post-modern view places economists in society, making them subjects that have subjective understandings (Palley, 1997b). This view is illustrated in Figure 8. This latter construction captures how the Minsky super-cycle embraces all, which explains why so many are carried away by the cumulative exuberance that gradually undermines the economy's thwarting institutions. That makes it difficult for policy to guard against the super-cycle, and it also makes it difficult for economists to theorize (i.e. model) the super-cycle except as a generic process.

Figures 8 & 9 here

VIII Policy Implications

Hyman Minsky was first and foremost a theorist of the process of financial capitalism. However, his work also carries deep prescriptions for thinking about policy and policymaking. Those policy prescriptions run significantly counter to the prescriptions generated by new classical and new Keynesian macroeconomics which have dominated economics for past thirty years.

Prescription 1: Policymakers should exercise self-conscious skepticism toward the euphoria that accompanies business cycle. Such euphoria is an inevitable product of the logic of the financial instability hypothesis.

Prescription 2*:* Capitalist economies need significant regulation containing financial speculation and financial excess because the economy has an automatic behavioral tendency to instability. If Milton Friedman is the philosophical advocate of a deregulated economy, Hyman Minsky is the philosophical advocate of a regulated economy. For Friedman the case for deregulation is to be found in the first welfare theorem of competitive general equilibrium theory. For Minsky the case for regulation is to be found in the financial instability hypothesis. That justification is distinct from the conventional market failure justification for regulation which is rooted in competitive general equilibrium theory.

Prescription 3: A Minskyian perspective emphasizes policy discretion over policy rules. Models, numbers, and rules are insufficient for policymaking. There is no substitute for judgment in policymaking because the economy is governed by an evolutionary dynamic that has an inevitable tendency toward instability. Rules based policy is unable to recognize and respond to this process. Instead, there is need for discretion combined with

thwarting institutions.[9] Indeed, those thwarting institutions might be considered Minsky's equivalent of rules.

In sum, Minsky's financial instability hypothesis is a theory of economic process under financial capitalism. That process has an inevitable tendency to generate instability, through the combination of the basic Minsky cycle and the Minsky super-cycle. This means there is a key role for policy to thwart instability through the creation of "thwarting institution". The challenge for policymakers is both to identify incipient sources of instability and to ward-off market participants whose private economic interests lead them to persistently evade, undermine, and advocate abolition of the thwarting institutions. That advocacy can take the form of direct capture of regulators, policymakers, and politicians, as well as indirect capture implemented through capture of economic discourse.

[9] Davidson's (1991) distinction between ergodic and non-ergodic processes provides a similar justification for the dominance of discretion over rules based policy making.

References

Bernanke, B., "The Great Moderation," Remarks at the meetings of the Eastern Economic Association, Washington DC, February 20, 2004.

Bernanke, B., Gertler, M., and Gilchrist, S., "The Financial Accelerator in a Quantitative Business Cycle Framework," in Taylor & Woodford (eds.), Handbook of Macroeconomics, Volume 1, Elsevier Science, p. 1341 – 93, 1999.

----------, "The Financial Accelerator and the Flight to Quality," Review of Economics and Statistics, 78 (1996), 1 – 15.

Boyer, R. and Y. Saillard, Regulation Theory: The State of the Art, Routledge: London, 2002.

Davidson, P. "Is Probability Theory Relevant for Uncertainty? A Post Keynesian Perspective, Journal of Economic Perspectives, 5 (Winter 1991), 129 – 43.

Delli Gatti, D., Gallegatti, M., and Minsky, H.P., "Financial Institutions, Economic Policy and the dynamic Behavior of the Economy," Working paper No. 126, The Jerome Levy Economics Institute of Bard College, New York, October 1994.

Dequech, D., "Expectations and Confidence Under Uncertainty," Journal of Post Keynesian Economics, 21 (Spring 1999), 400 – 15.

Ferri, P. and Minsky, H.P., "Market Processes and Thwarting Systems," Structural Change and Economic Dynamics, 3 (1992), 79 – 91.

Foley, D.K., "Liquidity – Profit Rate Cycles in a Capitalist Economy," Journal of Economic Behavior and Organization, 8 (1987), 363 – 76.

Gallegati, M., and Gardini, L., "A Non-linear Model of the Business Cycle with Money and Finance," Metroeconomica, 42 (1991), 1 – 32.

Hicks, J.R., A Contribution to the Theory of the Trade Cycle, Clarendon Press: Oxford, 1950

Johnson, S., "The Quiet Coup," The Atlantic Monthly, May 2009.

Kiyoyaki, N., and Moore, J., "Credit Cycles", Journal of Political Economy, 105 (1997), 211 – 48.

Kotz, D.M., McDonough, T., and Reeich, M. (eds), Social Structures of Accumulation: The Political Economy of Growth and Crisis, Cambridge University Press: Cambridge, 1994.

Minsky, H.P., "The Financial Instability Hypothesis," Working paper No. 74, The Jerome Levy Economics Institute of Bard College, New York, 1992 and published in Arestis P. and Sawyer M. (eds), Handbook of Radical Political Economy, Aldershot: Edward Elgar, 1993.

----------, "Financial Integration and National Economic Policy," paper presented at the Post Keynesian Workshop, University of Tennessee, Knoxville (July 1993).

----------, "A Linear Model of Cyclical Growth," Review of Economics and Statistics, 41 (May 1959), 133 – 45.

----------, "Monetary Systems and Accelerator Models, American Economic Review, 47 (1959), 859 – 83.

Palley, T.I, Plenty of Nothing: The Downsizing of the American Dream and the Case for Structural Keynesianism, Princeton University Press, 1998.

----------, "Endogenous Money and the Business Cycle," Journal of Economics, 65 (1997a), 133 – 149.

----------, "The Academic Jungle: Social Practice and the Survival of Economic Ideas," Review of Radical Political Economics, 29 (September 1997b), 22- 33.

----------, "Debt, Aggregate Demand, and the Business Cycle: An Analysis in the Spirit of Kaldor and Minsky," Journal of Post Keynesian Economics, 16 (Spring 1994), 371-90.

Samuelson, P.A., "Interactions Between the Multiplier Analysis and the Principle of Acceleration," The Review of Economic and Statistics, 21 (May 1939), 75 – 78.

Schumpeter, J.A., Business Cycles: A Theoretical, Historical and Statistical Analysis of the Capitalist Process, McGraw-Hill: New York, 1939.

Semmler, W., and Franke, R., "Debt Financing of Firms, Stability, and Cycles in a Dynamical Macroeconomic Growth Model," in E. Nell and W. Semmler (eds.) Nicholas Kaldor and Mainstream Macroeconomics, Macmillan, London, 1991.

Setterfield, M., "Should Economists Dispense with the Notion of Equilibrium," Journal of Post Keynesian Economics, 20 (1997a), 47 – 76.

----------, Rapid Growth and Relative Decline: Modeling Macroeconomic Dynamics with Hysteresis, Macmillan: London, 1997b.

Skott, P., "On the Modeling of Systemic Financial Fragility," in A.K. Dutt (ed.), New Directions in Analytical Political Economy, Edward Elgar: Cheltenham, 1994.

Soros, G., The Alchemy of Finance, John Wiley & sons, Inc.: New Jersey, 1987.

Wray, L.R., "Financial Markets Meltdown: What Can We Learn from Minsky?" Public Policy Brief No. 94, The Levy Economics Institute of Bard College, New York, 2008.

Figure 1. The two cycles embedded in the financial instability hypothesis.

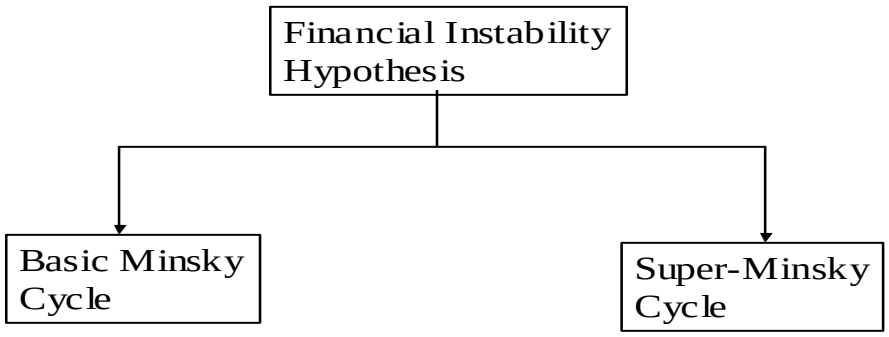


Figure 2. Stages of the basic Minsky cycle.

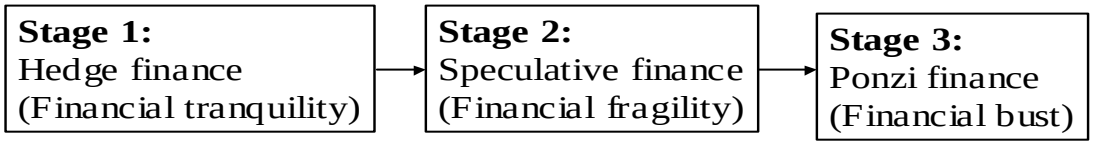


Figure 3. Stages of the super-Minsky cycle.

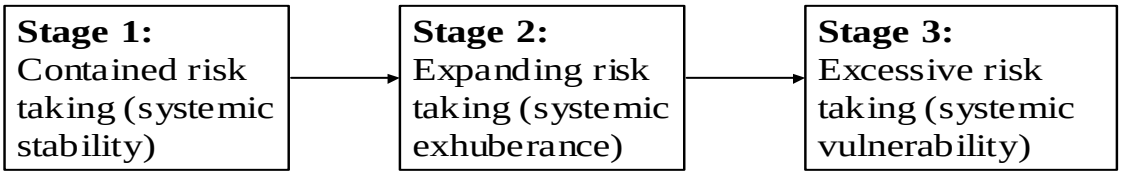


Figure 4. The full Minsky cycle through time.

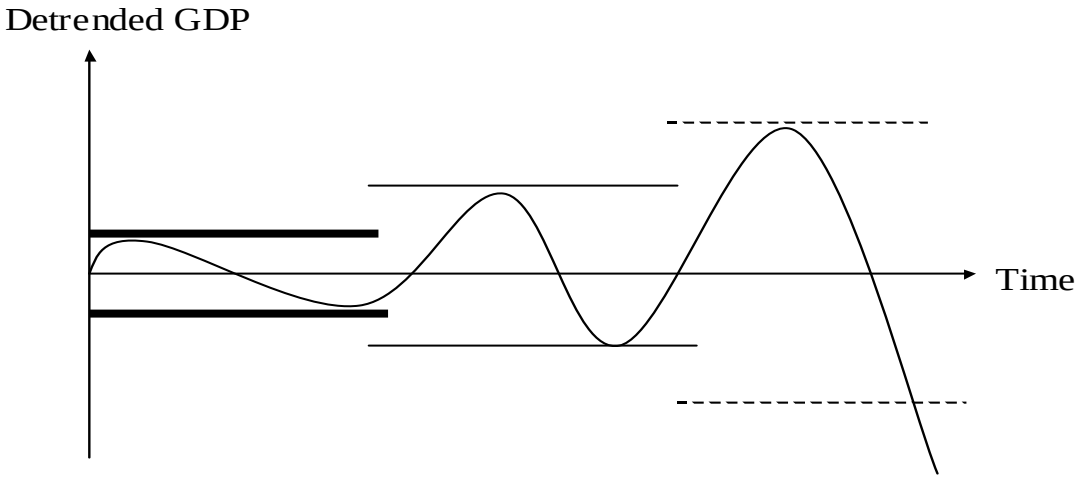


Figure 5. An alternative description of the full Minsky cycle through time.

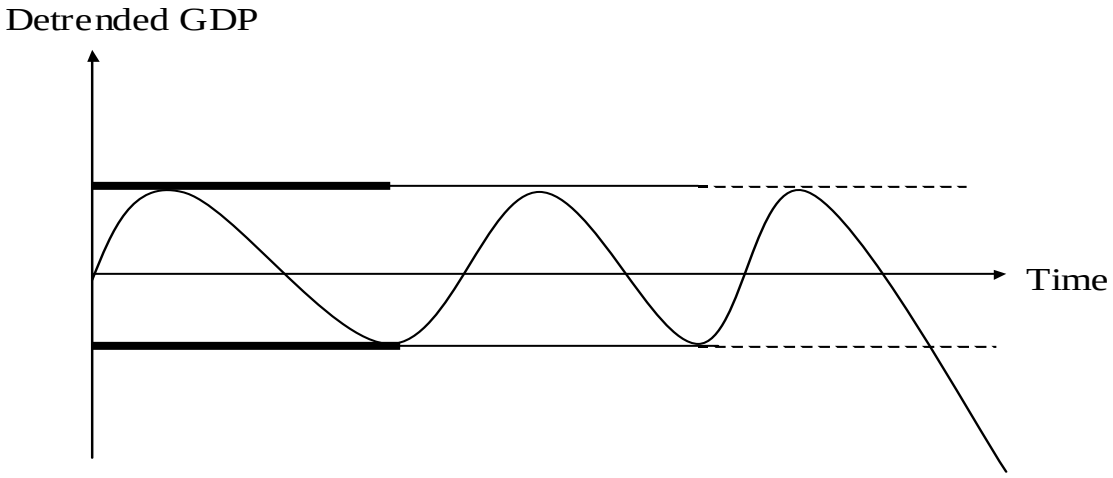


Figure 6. Details of the super-Minsky cycle.

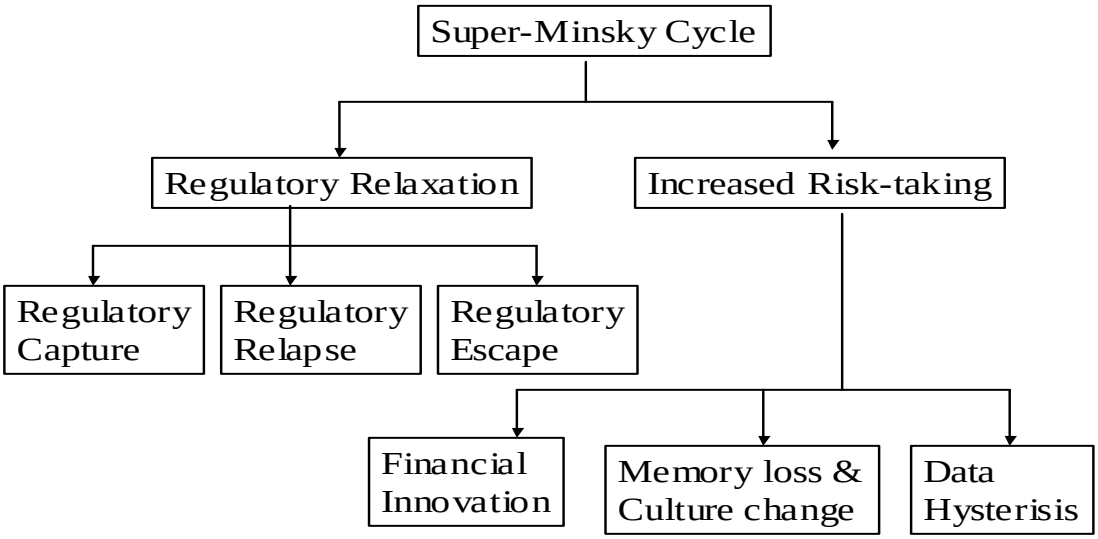


Figure 7. The changing pattern of risk & risk-taking.

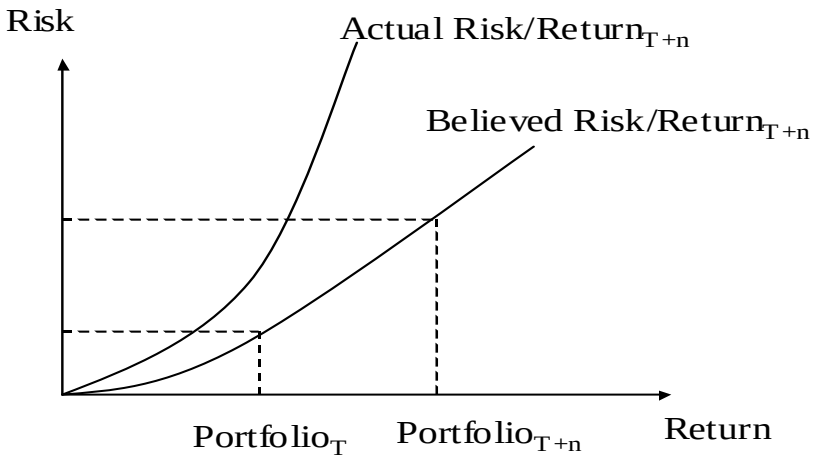


Figure 8. The conventional view of the relationship between economist and society.
Source: Palley, 1997

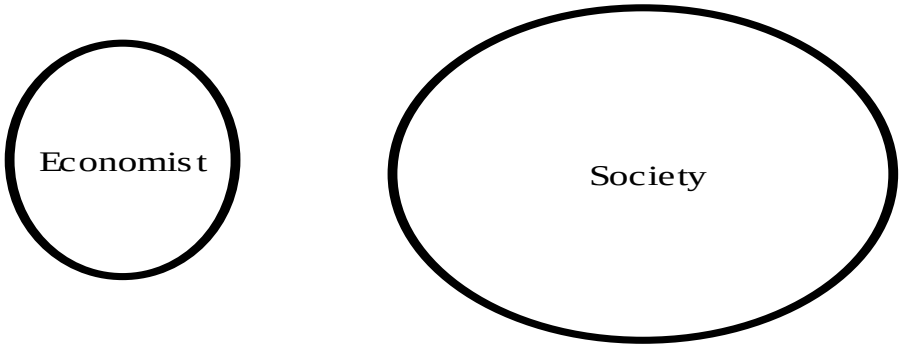
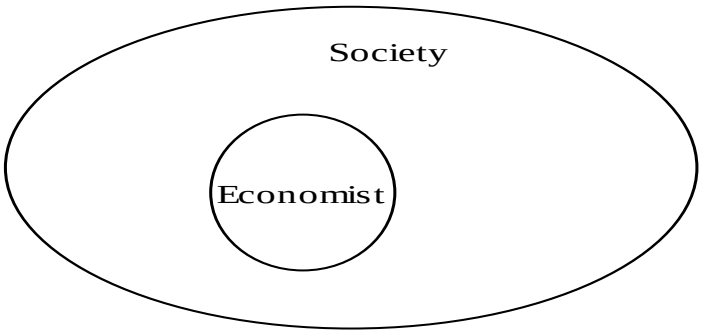


Figure 9. The post-modernist view of the relationship between economist and society.
Source: Palley, 1997.



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