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Hyman Minsky's Theory of Capitalist Development

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Hyman Minsky considered economics serious business. Many post-World War II economists have demonstrated little interest in contributing to the resolution of social problems. But Minsky's aim was always a more humane economy as a first step toward a better society. In his view, practical problem solving, not abstract puzzle solving, was the fundamental purpose of economic scholarship.

Minsky also believed that economics provided no easy answers. As a careful student of both theory and history, he knew that neither provided strong evidence for relying on markets alone to produce prosperity and economic stability. Making Minsky's search for practical answers even more difficult was the fact that during his career the U.S. economics profession was dominated by neoclassical theory--an approach he rejected as an inadequate starting point for economic analysis. In fact, reflecting on the fact that neoclassicalism was thoroughly entrenched in the nation's advisory and policy making circles, he once wrote, "Nobody 'up there' understands American capitalism" (Minsky 1982, 202).[1]

In an attempt to enable "economists and policymakers to do better," Minsky developed a Wall Street paradigm, a financial theory of investment, and an investment theory of business cycles--the latter of which is often called the financial instability hypothesis (FIH) (Minsky 1982, xii). These contributions, and his subsequent writings on the secular dimension of the FIH, have all received significant attention in recent years.[2] What has gone almost entirely unnoticed, however, is that Minsky explored an even broader historical framework during the last decade of his life. The product of those explorations--what can be called Minsky's theory of capitalist development--is the focus of the present paper.

The paper begins by describing the purposes behind Minsky's exploration of a theory of capitalist development. His theory is then outlined, both in terms of its essential elements and as it applies to the U.S. economy. A concluding section identifies directions for future research.

THE NEED FOR THEORY

An atheoretical outlook did not accompany Minsky's problem-solving orientation and rejection of neoclassical economics. In fact, Minsky had a number of reasons to engage in a theoretical examination of capitalism's development.

Minsky believed that effective policymaking requires an understanding of the dynamics of an accumulating capitalist economy. Since such dynamics include both short-term macroeconomic fluctuations and longer-term economic evolution, Minsky saw the need for developing theories to improve our understanding of each (Ferri and Minsky 1991, 24; Ferri and Minsky 1989, p. 124; Minsky 1993a). For Minsky, fashioning and updating such theories was the mission of Post-Keynesian theory.

Beyond the perennial need for useful theories to guide policy, Minsky saw a growing immediate need for Post-Keynesian theory in the 1980s. This need was mandated by decades of financial innovation and economic change (Minsky 1986a). By the early 1990s, Minsky had become thoroughly convinced that institutional reform was essential within both the financial system and the broader economy. As he wrote in 1991, "To create a worthy successor to the financial system that served us so well between the 1930s and 1980s requires a deeper look at our institutions than we have taken so far" (Minsky 1991a, 16). Since Minsky saw the need for nothing less than a thorough re-examination of "our current model of capitalism," he found the most effective way to obtain this "deeper look" was to focus on long-term capitalist development rather than business cycles (Minsky 1993b, 1; Ferri and Minsky 1991; Minsky 1993a, 113; Minsky 1996a).

Still another reason for devising and utilizing such an alternative to neoclassical theory in the early 1990s was a desire to stress the flawed nature of unregulated macroeconomic activity. In the two years leading up to the Republican takeover of the U.S. House of Representatives, there was a growing dismissal of counter-cyclical macroeconomic management within academic and policy circles. And this sentiment became even stronger after the 1994 election. In this period, Minsky thought it was essential to combat the dominant trend with an analysis grounded in history and institutional reality. His analyses focused on the decades before and after the New Deal and stressed that unregulated markets are inherently unstable and can produce an intolerable distribution of income (Minsky 1993b; Levy Institute 1994, 13-14; Minsky 1995a; Minsky 1996b).

Yet another reason for Minsky's exploration of capitalist development was to stress that capitalism can come in many varieties--varieties with varying implications for stability, efficiency and the distribution of market power. This fact was seen as an essential starting point not only for U.S. economic reconstruction but also for societies that sought to move from planned to market economies (Minsky 1991b; Minsky 1992). As Minsky argued, "Whereas all capitalisms are flawed, not all capitalisms are equally flawed" (Minsky 1986b, 295).

Finally, Minsky's broad examination of capitalist development provided an opportunity to consider the important links between various contemporary economic issues. While much of his work focused on the financial system, his analyses also explored the challenge of resource creation, economic insecurity, and tax reform. The message was unmistakable: specific policy areas should not be addressed in isolation--economists must be able to provide policymakers with a conception of the economy as an interrelated system (Ferri and Minsky 1991, 10; Minsky 1991a, 15-16; Minsky 1993b; Minsky 1996a; Minsky and Whalen 1996-97).

ESSENTIAL ELEMENTS

Minsky believed there was merit to standing on the shoulders of an intellectual giant. Writing on business cycles, Minsky made considerable use of the prior work of Keynes. In the mid-1980s, though, he became convinced that the structure of the U.S. economy had so fundamentally changed that an analysis of structural evolution was essential. It was at this point that Minsky turned to the insights of Schumpeter. In a 1986 essay, Minsky (1986c, 121) wrote: "The task confronting economics today may be characterized as a need to integrate Schumpeter's vision of a resilient intertemporal capitalist process with Keynes' hard insights into the fragility introduced into the capitalist accumulation process by some inescapable properties of capitalist financial structures."

Minsky believed that such an integration was possible because Schumpeter and Keynes (along with Marx and the institutionalists) had a common perception of the task of economics: "they each define the problem that economic theory must explain as the path of development of an accumulating capitalist economy through historical time" (Minsky 1986b, 285). From this perspective, the economy is a complex, time-dependent system. Society is an "evolutionary beast," changing in response to endogenous factors, not an equilibrium seeking and sustaining system (Ferri and Minsky 1991; Minsky 1993a, 104).

If the first element in Minsky's theory is the focus on economic activity as a process in time, then the second element is that capitalist dynamics can take many forms. The path of the economy through time can be progressive, stagnant or deteriorating--and tranquil or turbulent. In fact, it may be highly irregular--even chaotic.[3]

A fundamental determinant of the particular path of capitalist development is the economy's institutional structure. It is this structure that facilitates, influences, regulates and constrains economic activity. In recognition of the range of structures found throughout history, Minsky often stated that "capitalism comes in as many varieties as Heinz has pickles."[4] Moreover, given the notion of the economy as an evolving system, Minsky also stressed the dynamic nature of the institutional structure.

While standard economic theory emphasizes exchange, Minsky's recognition of historical time caused him to emphasize that production precedes exchange--and that finance precedes production. Thus, credit and finance are at the center of capitalist development. Moreover, "Because credit is essential to the process of development, a theory of economic development needs to integrate money into its basic formulation." The result is an approach inconsistent with Walrasian theory: "Monetary factors cannot be added on after a prior or dominant model has determined the basic output and relative price variables" (Minsky 1990a, 55).

So far it has been suggested that "the in-place financial structure is a central determinant of the behavior of a capitalist economy" (Minsky 1993a, 106). Yet another essential element in Minsky's theory is the driving force of the profit motive. This motive was an essential element in Minsky's writings throughout his career. He had long argued that present and prospective profits influence economic activity within the context of a given institutional structure--and that the structure itself changes in response to profit seeking. As Minsky gave increasing attention to capitalist development, profit-driven structural change took on increasing importance in his writings (Minsky 1986c; Ferri and Minsky 1989, 135; Minsky 1993a).

Scholars have long recognized Schumpeterian forces of creation and destruction in products and manufacturing processes. But Minsky emphasized that Schumpeter also gave attention to changes in financial systems. As a result, Minsky's theory stresses that financial markets evolve not only in response to profit-driven demands of business leaders and individual investors but also as a result of the profit-seeking entrepreneurialism of financial firms (Minsky 1986b; Minsky 1990a; Minsky 1993a). In fact, Minsky wrote: "Nowhere is evolution, change and Schumpeterian entrepreneurship more evident than in banking and finance and nowhere is the drive for profits more clearly the factor making for change" (Minsky 1993a, 106). In short, financial innovation is another essential element in Minsky's theory--indeed, such innovation is a crucial determinant of institutional evolution.[5]

To summarize, capitalist development is shaped by the institutional structure, but this structure is always evolving in response to profit-seeking activity. The financial system takes on special importance in this theory not only because finance exerts a strong influence on business activity but also because this system is particularly prone to innovation. Since finance and industrial development are in a symbiotic relation, financial evolution plays a crucial role in the dynamic patterns of the economy.

There is, however, one more essential element of Minsky's theory: public policy. Government action is an inescapable determinant of capitalist economic development. Its decisions shape the institutional framework that conditions economic activity.

As U.S. economic experience has shown since 1933, discretionary policy interventions and institutional containing mechanisms can both be utilized to promote economic stability. Counter-cyclical fiscal policy (Minsky's "big government") and lender-of-last-resort monetary initiatives have been among the most potent stabilizers employed in the past half century.[6] But financial- and labor-market regulations have also played contributing roles. As Minsky indicated in *Stabilizing an Unstable Economy* , "policy influences both the details and overall character of the economy." Thus, economists and policymakers "must be concerned with the design of institutions as well as with operation within a set of institutions" (Minsky 1986a, 7, 293; Ferri and Minsky 1991; Delli Gatti, Gallegati and Minsky 1996; Minsky 1996a).

Since the economy evolves endogenously, no policy regime will provide a "once-and-for-all solution" to economic difficulties. In time, policies that once worked well may no longer be adequate due to innovations in finance and business or the emergence of new problems (Minsky 1986a, 293). While Minsky recognized it is neither possible nor desirable for policymakers to engage constantly in institutional reform, he stressed that such change becomes essential when inadequate economic performance becomes widely evident and deemed serious by the public and its representatives (Minsky 1986a, 5).[7]

U.S. CAPITALIST DEVELOPMENT

The history of economic thought contains a variety of theories of capitalist development. Some recent theories are efficiency-driven. Other theories focus on technology, product innovation, or class struggle. Minsky's theory is finance-driven, and the relations between finance and business are given center stage. Key questions to be asked at each stage are: what is being financed, and what is the pivotal source of financing?

A consideration of Minsky's theory as it applies to U.S. economic history provides evidence that capitalism does indeed come in many varieties. At least five stages can be identified — and we might now be on the verge of creating a sixth. The five stages can be labeled as follows: merchant capitalism (1607-1813), industrial capitalism (1813-1890), banker capitalism (1890-1933), managerial capitalism (1933-1982), and money-manager capitalism (1982-present).[8] (See Table I at the end of this paper.)

Merchant capitalism emerged from European feudal society and took root in America with establishment of British colonies in the 1600s. Merchants dominated the economic scene until approximately 1813, when the Boston Manufacturing Company (organized by Francis Lowell) began operating the first integrated cotton textile factory in the United States.[9] The dominant source of finance in this initial era provided funds for goods in process, stock (inventories), or transit. The financing was provided by merchant banking ("vouching for the legitimacy of distant trade partners" and financing goods in transit) and commercial banking (Minsky 1990a, 67; 1992, 30-31).

Merchant capitalism was characterized by owner-managed enterprises--usually proprietorships or partnerships--with few employees and often few transactions per day (Heilbroner and Singer 1994, 62). To a large extent, the U.S. economy was a raw-material export economy in this era. Production was by labor and tools, rather than by machinery and labor.

A growing population and the arrival of the industrial revolution helped undermine merchant capitalism. But Minsky is correct in drawing our attention to the profit motive, for profit was the driving force for individuals whose names have become synonymous with the arrival and expansion of industrial capitalism (Francis Lowell, Eli Whitney, Cyrus McCormick, Cornelius Vanderbilt, and Andrew Carnegie, for example). Moreover, innovation in finance was a prerequisite--for the banking structures of merchant capitalism were ill suited to finance the capital development of the economy.

Industrial capitalism was characterized by emergence of financial organizations that could mobilize the resources needed for factory manufacturing, capital-intensive transportation, mills, and mines. This era saw organization of the New York Stock Exchange and the rise of investment banking houses such as that of J.P. Morgan.[10] The partnership gave way to the corporation, and home production gave way to factory production.

Industrial capitalism was also a period characterized by numerous rounds of cutthroat price competition. By threatening the financial health of industrial firms, this competition threatened the ability of corporations to fulfill their payment commitments. Also threatened was the security of investments. Thus, many business leaders and bankers "began to abhor competitive markets" (Minsky 1993a, 109). Morgan, for example, is reported to have said, "I like a little competition; but I like combination better" (Heilbroner and Singer 1994, 206). Others were even less generous toward the invisible forces of the marketplace.

Banker capitalism was the new era established when investment bankers responded to cutthroat competition in the 1880s and 1890s. Its arrival is characterized by investment bankers turning their attention toward the financing of industrial combinations (cartels, trusts and mergers), a trend not at all altered by the Sherman Anti-Trust Act. Indeed, there was a merger wave in its aftermath.[11] "By 1904, one or two giant firms — usually put together by merger -- controlled at least half the output in seventy-eight different industries" (Heilbroner and Singer 1994, 208).

In the evolution from merchant capitalism to banker capitalism, private economic power had become greatly concentrated. While the law of supply and demand was not repealed, private-sector financiers and managers exerted their own formidable force during banker capitalism — at both the enterprises and industry levels. At the enterprise level, "scientific" techniques devised or inspired by Frederick Winslow Taylor combined with assembly-line production and enabled managers to generate significant increases in factory output. At industry level, meanwhile, investment bankers acquired a controlling position in the economy not only by arranging mergers but also by securing large ownership shares and seats on the boards of directors of newly combined corporations.

Minsky does not explain the speculative boom and collapse that brought about both the Great Depression and the end of banker capitalism. But evidence exists that is consistent with the essential elements of his analysis (and with his extensive writings on business cycles and secular fragility). It is said that the financial panic of 1907-08 was brought to an end when Morgan stepped in to minimize the economic losses. But his firm was not able to repeat this achievement in 1929 (Galbraith 1961). According to Guilio Pontecorvo's landmark study of the 1920s, investment-banking firms had become victims of their own success.

Although the years between 1908 and 1929 were not recession free, they were depression free and generally prosperous — a sharp contrast with the American experience from 1866 through 1908. Because the U.S. capital market was free from any significant policy constraints prior to 1933, any regulation had to come from within the financial community. But the relative stability and prosperity attracted not only new investors but also new investment bankers to the industry (many commercial banks, for example, formed investment banking affiliates in the 1920s). While the older firms were more conservative in their practices, the new firms were "aggressively engaged in expansion of their business." Moreover, close ties between some investment companies and speculative interests meant that their policies contributed more to market instability than to stability (Pontecorvo 1958).

Pontecorvo writes that the effect of entry into investment banking in the 1920s "was to reduce the relative importance and the leadership role of the original firms. Furthermore, the industry developed a large competitive fringe. This fringe of highly competitive firms had a considerable effect on the behavior of the industry." He concludes: "The overall impact of these changes was the elimination of any internal controls that may have been present in the earlier period. The instability in the structure created by the rise of new firms was a factor in the security inflation that followed" (Pontecorvo 1958). In classic Minskian fashion, success bred daring — and when the speculative bubble burst, the not even the nation's great investment banking houses could contain the collapse.

The Depression made manifest the need for public action to stabilize economic activity in the face of business downturns. Due to the divergence between individual and collective rationality, it was nearly impossible for individual bankers, businesses and farmers to do anything except cut loans, slash prices, reduce employment, and increase agricultural yields--all of which made matters worse in the aggregate. Franklin Roosevelt's answer was the New Deal, a series of policies and reforms that ushered in the next stage of U.S. capitalist development.

Managerial capitalism began with bold government action in the realm of monetary policy and banking. Through the Emergency Banking Act and other initiatives, Americans were provided with an accommodative Federal Reserve, bank reorganizations, and institutional reform including deposit insurance, securities regulation, and compartmentalization of financial institutions. Combined with counter-cyclical fiscal policy, farm policies and labor-market regulations, this government action helped set the stage for an unprecedented period of stability and prosperity after World War II.

The postwar economic environment--characterized by oligopolistic markets, insignificant foreign competition, and government macroeconomic management--enabled U.S. corporate managers a high degree of independence from banker and stockholder pressures. Unfortunately, as managers emphasized stability, many neglected adaptation. The result was complacency that produced considerable economic upheaval when inflation and intense foreign competition both appeared on the scene in the 1970s.

Another trend after World War II was the secular evolution of a more fragile financial system--as postwar prosperity and lender-of-last-resort monetary interventions by the Fed encouraged reductions in margins of safety, greater reliance on debt financing, and a turn toward short-term financing. In time, there was also an explosion of activity by finance companies and other non-bank financial institutions--as well as a steady stream of bank innovations such as the securitization of loans and the creative use of off-balance sheet commitments.[12]

One major innovation in the financial system in the postwar period was the rise of managed-money funds--pension funds, mutual funds, bank trust funds, and the like. Part of this growth was due to the spread of private pensions as a feature of the U.S. labor market. Over time, such funds accumulated vast sums. Inflation's damaging effect upon bank deposits also contributed to the increase in managed-money funds. As the postwar era progressed, "individual wealth holdings increasingly took the form of ownership of the liabilities of managed funds rather than the holding of a portfolio of the liabilities of individual businesses" (Minsky 1993a, 110-111).

Money-manager capitalism became a reality in the 1980s as institutional investors, by then the largest repositories of savings in the country, began to exert their influence on financial markets and business enterprises. The aim of money managers, and the sole criterion by which they are judged, is the maximization of the value of the investments made by fund holders. As a result, business leaders became increasingly sensitive to short-term profits and the stock-market valuation of their firm. In the era of managerial capitalism, corporate managers "were the masters of the private economy" (Minsky 1993a, 110). By the 1980s, money managers were the masters.

The rise of institutional investors encouraged continued financial-system evolution by providing a ready pool of buyers for securitized loans, the commercial paper of finance companies, and other innovations. It also fueled the trend toward mergers, acquisitions, corporate breakups, leveraged buyouts and stock buybacks--since fund managers have a strong incentive to support whatever initiatives promise to boost near-term portfolio value. These managed-money funds often provided the resources that raiders needed to secure corporate control.

Money manager pressures--often in combination with the force exerted by growing international competition and rapid technological and product-market changes--also encouraged corporate downsizing and re-engineering. While such changes sometimes gave remaining employees greater individual autonomy than they had under scientific management, organizational restructuring and management re-engineering also generated worker insecurity. In addition to job insecurity, employees (including professional workers and managers) faced a workplace in which productivity pressures and contingent work was on the rise while many intra-organizational job ladders and employer-provided training opportunities were being eliminated. As the Wharton School's Peter Cappelli and a research team of distinguished U.S. scholars concluded in 1997, employment relations under money-manager capitalism involved a rush toward treating human resources as a cost to be minimized. Labor was seen increasingly as just other "spot market" commodity (Cappelli et al. 1997).

Throughout this period, government has continued to provide lender-of-last-resort assistance to stabilize the overall economy. But it has also provided its own encouragement to the evolution of the financial system by removing many regulations imposed during the New Deal. Tax law changes have also encouraged takeovers, buyouts and other types of corporate restructuring (Wolfson 1994, 111-112).

A decade ago, Minsky observed that money-manager capitalism is global and that further international economic integration would take place in the years ahead. Here is a sampling of his comments on these matters:

"Managed money capitalism is international in both the funds and the assets of the funds. It has rendered obsolete the view that trade patterns determine the short-run movement of exchange rates" (Minsky 1990a, 71).

"As the countries that are involved in managed money capitalism increase, an international division of responsibility for maintaining global aggregate gross profits will be necessary" (Minsky 1990a, 71).

"Global financial integration is likely to characterize the next era of expansive capitalism. The problem of finance that will emerge is whether the financial and fiscal control and support institutions of national governments can contain both the consequences of global financial fragility and an international debt deflation" (Minsky 1995b, 93).[13]

This presentation of Minsky's theory of U.S. capitalist development began with the suggestion that a sixth economic stage might now be emerging. This suggestion comes from the fact that national and international entities have recently sought not only to contain the recent Asia-centered global financial crisis but also to prevent similar crises from appearing in the future (see, for example, Council of Economic Advisors 1999, chapter 7). If the international financial architecture is indeed reformed in this way, it may soon be possible to speak of a new era of coordinated policies and institutions that might be called "global finance capitalism."

FUTURE RESEARCH DIRECTIONS

Economists choosing to pursue lines of research opened by Minsky's theory of capitalist development can expect to be busy for quite some time. His ideas on capitalist development continue to guide us and challenge us to explore important questions.

One direction for future research is to more thoroughly develop his theory as it relates to the U.S. economy. Minsky made it clear that for each stage we should ask what is the distinctive activity being financed, what is the pivotal source of financing, and what is the balance of economic power between those in business and banking/finance. He also suggested that we strive to identify the essential financial, business, and policy institutions of each era. There is still much room for scholarship on these topics and on the inter-relations of finance and business within each stage.

Developing Minsky's theory more thoroughly might also involve explorations that begin by dividing each stage into three periods: financial exploration and experimentation; institutionalization and diffusion of new practices; and erosion. Providing insight into the transition from one stage to another is an important aspect of any valuable theory of capitalist development. A deeper understanding of the U.S. economy is likely to be achieved by fleshing out his theory in this manner.

Another possible research direction is to consider how the essential elements of his theory can be applied to other nations. Minsky's writings offer only a few suggestions on this (see, for example, Minsky 1990a; 1991a). There is much room for fruitful research here--research with the potential not only to further human understanding but also to help shape the continued evolution of market economies. Indeed, transitional economies may find such scholarship particularly useful as they prepare to continue on the path from planning to markets.

The aforementioned research avenues offer room for rigorous analysis and hypothesis testing. But there is also room for those who are even more inclined to mathematical and conceptual explorations. In particular, through an examination of macroeconomic models such scholars can follow Domenico Delli Gatti, Mauro Gallegati and Minsky in exploring the role of alternative institutional constraints on economic activity (Delli Gatti, Gallegati, and Minsky 1996).

Yet another research possibility involves taking Minsky's theory of the U.S. as a point of departure for any of a number of specific questions with contemporary policy significance. For example:

- How can technological dynamism be sustained in the era of money-manager capitalism (or its successor, if recent trends indeed warrant us to think in terms of a successor)? Can the private sector alone promote advanced technology? If not, what should be the role for government (Minsky 1990a, 72)?[14]
- How can policymakers promote a level of private (and public) resource creation consistent with full employment and reasonable economic growth (Minsky 1986b, 294)? (In part, answering this question requires considering whether the economy is better served by financial institutions that are centralized or decentralized, and are broad or compartmentalized (Minsky 1992, 37).
- What are the likely effects of alternative policies on inflation, macroeconomic stability, efficiency, and economic security (Minsky 1986b, 295)?[15]
- Does the pension fund system--and the wider social security and retirement system--need to be overhauled? Should policy induce a shift to defined contribution schemes? Can/should open-ended IRAs be used to attenuate the power of pension funds? Should the income tax be transformed into a

spending tax (Minsky 1992, 34-35)?

- How can the business need for profits be balanced with both the household need for security through time and the economy's need for capital development (Minsky 1991a, 16; Minsky 1996a)?
- How should the global financial system be structured to promote growth and contain instability (Minsky 1995b, 93; Minsky 1990b)?

In short, Minsky's theory of capitalist development provides the foundation for a comprehensive research program. Minsky started with a commonsense suggestion--that policy would be more apt if it reflected an understanding of the economy as an evolving entity. From this he constructed a formidable alternative to the neoclassical paradigm.

Ten years ago, Minsky thought that the present would be an exciting time for economists--at least for those who took as their starting point the idea that economic behavior leads to unstable dynamics. As usual, he was right. Yes, Minsky considered economics serious business. But he also saw it as a subject of thrilling interests, not a dismal science.[16] Economics in the twenty-first century will be whatever we make it. Fortunately, we can stand on the shoulders of a giant. Minsky will continue to guide and challenge us for many years to come.

NOTES

1. During Minsky's last public lecture, he stated: "In the neoclassical school, even in its most modern forms, it is not clear that the economy under analysis is capitalist" (Minsky 1996a, 362).
2. For more on what I call the "secular dimension" of Minsky's FIH, see Whalen (1997, 518).
3. Chaotic behavior involves a complex, nonlinear time path (Ferri and Minsky 1991, 8).
4. This is a reference to the Heinz slogan, "57 varieties."
5. On financial innovation, Minsky (1993a, 106-107) writes: "To understand the short-term dynamics of the business cycle and the longer-term evolution of economies it is necessary to understand the financing relations that rule, and how the profit-seeking activities of businessmen, bankers and portfolio managers lead to the evolution of financial structures. . . Consumer sovereignty is subordinated to the vision of entrepreneurs and the critical analysis of bankers in determining the path of the economy."
6. Drawing on Schumpeter, Minsky (1990a, 56) notes that the banker/financier is the "ephor" (controlling figure) of a market economy, and that the central bank is the ephor of the ephor.
7. Since policy interventions in the economy are the product of political processes, Minsky stresses that the path through time of an economy is a "political economy phenomenon" (Ferri and Minsky 1989, 138).
8. Minsky calls merchant capitalism and banker capitalism "commercial capitalism" and "financial capitalism," respectively. For me, the former labels (borrowed from John R. Commons) are slightly more descriptive. For Minsky's most detailed discussions of these stages, see Minsky (1990a; 1992; 1993a). Elements of this analysis are also discussed in Minsky (1990b; 1991a; 1996a) and Minsky and Whalen (1996-97); see also Whalen (1997). The present section (U.S. Capitalist Development) is based on these references.
9. Lowell's factory was "integrated" in that "the plant both spun cotton and thread and wove it into cloth by machine" (Heilbroner and Singer 1994, 109).
10. Investment banking houses, working in securities markets, were the dominant financial institutions of this era. Investment bankers "acted as brokers when they facilitated trade in existing [stock and bond] issues and as dealers when they underwrote new issues" (Minsky 1993a, 108-109).
11. Between 1892 and 1902, for example, J.P. Morgan played an instrumental role in arranging mergers that created General Electric, American Telephone and Telegraph, International Harvester, and United States Steel Corporation (Heilbroner and Singer 1994, 206).
12. The reader will note it is here that the secular dimension of Minsky's FIH connects with his theory of capitalist development.
13. In contrast, neoclassical economists did not foresee the Asian financial crisis and had little to offer when it occurred. As Paul Krugman (1998, 23) wrote on the Asian crisis in October 1998, "Suppose that you were to buy a copy of the best-selling textbook on international economics. What would it tell

you about how to cope with such a sudden loss of confidence by international investors? Well, not much." He then added: "Trust me--I'm the co-author of that textbook."

14. Minsky was concerned that "the emergence of money-manager capitalism means that the financing of the capital development of the economy has taken a back seat to the quest for short-run total returns" (Minsky 1992, 32; see also Minsky 1993a, 113). He was particularly concerned that the capital needs of advanced technology development would be passed over by the private sector (Minsky 1990a, 72).
15. Minsky (1992, 36) believed better coordination is needed between the macroeconomic impact of government spending, which promotes the conditions that sustain profit flows, and the microeconomic impact of such spending, "which creates the conditions conducive to private resource creation and progressive enterprise."
16. I borrow the alternatives of "a subject of thrilling interests" and 'a dismal science' from Wesley Mitchell.

REFERENCES

Cappelli, Peter, and Lauri Bassi, Harry Katz, David Knoke, Paul Osterman, and Michael Useem. 1997. *Change at Work*. New York: Oxford University Press.

Council of Economic Advisers. 1999. *Economic Report of the President*. Washington, D.C.: United States Government Printing Office.

Delli Gatti, Domenico, Mauro Gallegati, and Hyman P. Minsky. 1996. "Financial Institutions, Economic Policy, and the Dynamic Behavior of the Economy."

Ferri, Piero, and Hyman P. Minsky. 1989. "The Breakdown of the IS-LM Synthesis: Implications for Post-Keynesian Economic Theory," *Review of Political Economy* 1 (July): 123-143.

_______. 1991. "Market Processes and Thwarting Systems." Working Paper No. 64. Annandale-on-Hudson, N.Y.: The Jerome Levy Economics Institute.

Galbraith, John Kenneth. 1961. *The Great Crash*. Boston: Houghton Mifflin.

Heilbroner, Robert, and Aaron Singer. 1994. *The Economic Transformation of America: 1600 to the Present*. New York: Harcourt Brace.

Krugman, Paul. 1998. "The Confidence Game," *The New Republic* (October 5): 23-25.

The Jerome Lvy Economics Institute. 1994. "Hyman P. Minsky: The Success of Big Government Capitalism." Levy Institute *Report* (December): 13-14.

Minsky, Hyman P. 1982. *Can "It" Happen Again? Essays on Instability and Finance*. Armonk, N.Y.: M.E. Sharpe.

_______. 1986a. *Stabilizing an Unstable Economy*. New Haven, Conn.: Yale University Press.

_______. 1986b. "The Crises of 1983 and the Prospects for Advanced Capitalist Economies." In *Marx, Schumpeter and Keynes: A Centenary Celebration of Dissent*, Suzanne W. Helburn and David F. Bramhall, eds. Armonk, N.Y.: M.E. Sharpe.

_______. 1986c. "Money and Crisis in Schumpeter and Keynes." In *The Economic Law of Motion of Modern Society: A Marx-Keynes-Schumpeter Centennial*, H.J. Wagener and J.W. Drukker, eds. Cambridge, UK: Cambridge University Press.

_______. 1990a. "Schumpeter: Finance and Evolution." In *Evolving Technology and Market Structure:*

Studies in Schumpeterian Economics, Arnold Heertje and Mark Perlman, eds. Ann Arbor, Mich.: The University of Michigan Press.

_______. 1990b. "Money Manager Capitalism, Fiscal Independence and International Monetary Reconstruction." In *The Future of the Global Economic and Monetary System*, M. Szabo-Pelsoczi, ed. Budapest: Institute for World Economics, Hungarian Academy of Sciences.

_______. 1991a. "The Rationale for the Conference: An Agenda for the Good Financial Economy." Remarks prepared for delivery at The Jerome Levy Economics Institute, Annandale-on-Hudson, N.Y., November 21.

_______. 1991b. "The Transition to a Market Economy: Financial Options." Working Paper No. 66. Annandale-on-Hudson, N.Y.: The Jerome Levy Economics Institute.

_______. 1992. "Reconstituting the United States' Financial Structure: Some Fundamental Issues." Working Paper No. 69. Annandale-on-Hudson, N.Y.: The Jerome Levy Economics Institute.

_______. 1993a. "Schumpeter and Finance." In *Market and Institutions in Economic Development: Essays in Honor of Paulo Sylos Labini*, Salvatore Biasco, Alessandro Roncaglia, and Michele Salvati, eds. New York: St. Martin's Press.

_______. 1993b. "Finance and Stability: The Limits of Capitalism." Working Paper No. 93. Annandale-on-Hudson, N.Y.: The Jerome Levy Economics Institute.

_______. 1995a. "A Positive Program for Successful Capitalism." Draft paper, distributed to colleagues at The Jerome Levy Economics Institute.

_______. 1995b. "Longer Waves in Financial Relations: Financial Factors in the More Severe Depressions II," *Journal of Economic Issues* 29 (March): 83-95.

_______. 1996a. "Uncertainty and the Institutional Structure of Capitalist Economies," *Journal of* Economic Issues 30 (June): 357-368.

_______. 1996b. "Foreword." In *Political Economy for the 21st Century: Contemporary Views on the Trend of Economics*, Charles J. Whalen, ed.

Minsky, Hyman P., and Charles J. Whalen. 1996-97. "Economic Insecurity and the Institutional Prerequisites for Successful Capitalism," *Journal of Post Keynesian Economics* 19 (Winter): 155-170.

Pontecorvo, Guilio. 1958. "Investment Banking and Security Speculation in the Late 1920s." *Business History Review* 34 (Summer): 166-191.

Whalen, Charles J. 1996. "Money-Manager Capitalism and the End of Shared Prosperity," *Journal of Economic Issues* 31 (June): 517-525.

Wolfson, Martin H. 1994. *Financial Crises: Understanding the Postwar Experience*. Armonk, N.Y.: M.E. Sharpe.

TABLE I. STAGES OF CAPITALIST DEVELOPMENT

	MERCHANT CAPITALISM	INDUSTRIAL CAPITALISM	BANKER CAPITALISM	MANAGERIAL CAPITALISM	MONEY-MANAGER CAPITALISM
What Distinctive Activity is Financed?	Transportation of Goods; Acquisition of Inventories; Goods Production	Industrial Expansion (Acquisition of Factories and Machines)	Industrial Consolidation (Trusts and Mergers)	Macroeconomic Growth and Stability	Increase of Stock—Market Values and Corporate Profits (Often Involves Merger, Buyout or Break-up)
What is the Pivotal Source of Financing?	Commercial or Merchant Bank	Investment Bank	Investment Bank	Central Bank	Institutional Investment Funds (Pension & Mutual Funds)
What is the Fundamental Enterprise or Entity Financed?	Proprietorship and Partnership	Industrial Corporation	Combined Corporation	Private Sector (Financed through the Banking System; Conglomerate Form Dominates in Business)	International Corporation
What Group Holds the Greatest Economic Power?	Power is Dispersed (Merchants and Bankers)	Investment Bankers	Investment Bankers	Corporate Managers (Assumes Government Macroeconomic Coordination)	Money-Fund Managers
What is the Distinctive Input?	Labor	Machinery	Management (Coordination of the Industry and the Firm)	Macroeconomic Coordination by Government; Microeconomic Coordination by Business Managers	Expertise in Finance and Accounting